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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

LECTURE XI.

Birth and Management of the Secundines.

WE now proceed, Gentlemen, to speak of the birth and management of the Secundines—the Placenta and Membranes, in labours on the whole natural.

If the womb chances to be more than usually active after the birth of the child, it sometimes very promptly expels the placenta. More generally, however, after the child is come into the world, the womb reposes itself for fifteen or twenty minutes, after which contractions occur, and sometimes, though rarely, as I have myself seen, the placenta is completely expelled from the vagina; sometimes, and more frequently, it is pushed into the upper part of the vagina, or in part expelled from the uterus, so that it lies partially in both cavities; and sometimes it may be pushed down to the mouth of the uterus, so that at the os uteri the insertion of the chord may be easily felt. This expulsion of the placenta, more or less complete, is usually attended with a discharge of blood, of varying quantity, seldom, however, exceeding a few ounces, a gurgling noise perhaps indicating when the blood comes away; and this I rather mention, in order that, being on your guard, you may be prepared for the accident, not feeling needlessly alarmed when the hæmorrhage occurs.

These contractions of the uterus, which, occuring after the birth of the child, expel the placenta, are of no small importance, and the effects which are produced by them may therefore be worth our consideration; and first we may observe, that where the uterus contracts, in consequence of the diminution of the extent of its surface internally, detachment of the placenta is produced, in the same manner as under this contraction of my hand my handkerchief now separates from the fingers which contain it—the palmar surface diminishing, while that of the handkerchief remains unchanged. Again, in contracting, the uterus does not merely detach itself from the placentar surface, but as I have told you already, it more or less completely expels the organ, pushing it beyond the os externum or into the vagina, or into the mouth of the uterus, or into that part of the cervix uteri, where it may be felt lying behind the disc formed by its mouth. To these two effects of uterine contraction a third may be added, scarcely less important—I mean the security which it gives against the risk of inversion. If the womb is in an uncontracted state, its cavity large, its parietes thin, its substance soft and flexible, and you, laying hold of the placenta, draw down without previous reflection, there is a great risk lest the uterus, to use an expressive illustration, should be turned inside out, as I now invert this pocket. But if the womb, as it ought to be when the placenta is taken away, is contracted in every direction—its cavity small, its sides thick, its substance hard—under these circumstances an inversion is not only improbable, but perhaps impossible. So that it seems among the advantages arising from the contraction of the uterus we may enumerate, not merely the detachment of the placenta and the exclusion of the placenta, but the security against uterine inversion, which this contraction best affords. A fourth advantage, not to be overlooked, derivable from uterine contraction is, that it diminishes the risk of hæmorrhagia from the womb. Into the placenta there are a number of blood-vessels shooting; those vessels, arteries, and veins are of very large capacity. Now why is it, that when you take away the placenta and lay all these vessels open, you have not always a large eruption of blood? Much may, perhaps, be ascribed to the concretions which form in the mouths of these

vessels, and still more to the uterine contractions; for where the womb contracts, its muscular fibre contracts, and when the fibre contracts, the vessels are contracted also; for the vessels ramifying among the fibres, these fibres when contracted around them, like so many ligatures, close the branches, venous and arterial. I will not assert, for this is unproved, that if the placenta be withdrawn while the womb is in the uncontracted state, hæmorrhage must always occur. Now and then, where the circulation is low and the vascular orifices are closed by sanguineous concretions, *abundant* hæmorrhages may *not* be produced; but certain it is, that unless the womb be thoroughly contracted, there is always a risk of bleeding; a risk which, as explained already, is very materially diminished by the contraction of the muscular fibres. For various reasons, then, it is clearly very desirable, that after the birth of the child the full contraction of the uterus should be obtained, for this contraction it is which detaches the placenta, expels the placenta, secures the womb against the risk of inversion, and the vessels against the more formidable and fatal eruptions of the blood.

If you examine the womb, as ought to be your custom, immediately after delivery; there are four very different conditions in which it may be felt; sometimes it is large and lax, and nearly as big as the adult head; and sometimes it is small and soft, not bigger than the head of a full-grown fœtus, and yielding like the breast under the touch; sometimes, in a third condition, very different from the preceding, you find it small and rounded, and as hard as a piece of cartilage, or as the head of the fœtus; and sometimes, again, you find it in a fourth and intermediate state, very hard at one moment, and very relaxed at another. In all these four conditions, which it may not be amiss to recapitulate, the womb may be found after delivery; large and soft, small and soft, contracted, rounded, and very hard, or contracted and rounded with occasional induration, and occasional pultification.

Those tangible conditions of the uterus, are to be made out solely by examination above the symphysis pubis carefully instituted; and every scientific accoucheur ought to be able to determine with certainty, in what condition the organ lies. You will find, generally, on applying your hand above the symphysis pubis, feeling the uterus there, grasping it as felt through the abdominal coverings, that you may readily enough, especially when rounded and hard, determine the state in which it is. If, however, you find a difficulty in feeling the uterus, and no hæmorrhagic symptoms occur, you may wait; and, by-and-by perhaps, examining a second time above the symphysis pubis, when the womb is more contracted, rounder, and more indurated, you may feel it obviously. Should you, however, still seek the womb in vain, though desirous to ascertain what may be its condition, you may then pass two fingers, the first and second of the left hand, to the mouth of the uterus, an operation easily accomplished, as the passages have been laid open by the child; and thus getting a bearing on the uterine mouth, you may throw the womb forward, and then, undoubtedly, the hand being applied externally through the coverings, and above the symphysis pubis, the womb may be felt; for, in fact, it is thrown by the action of one hand into the hollow of the other.

Of these four conditions of the womb after delivery, remember there is one only which is to be looked upon as perfectly healthy, and altogether desirable. The woman may do well under the three other states of the uterus, but this alone is secure; and I here allude to that condition of the uterus already mentioned, in which, like the head of the child, it feels contracted, round, and permanently indurated, for it is this contraction of the muscular fibres which secures against the probable risk of flooding or inversion. If the womb be large and pulpy—if, though contracted, it feel soft and yielding—if, lastly, alternating its condition, it seems at one time soft, and at another indurated;—although the woman may be perfectly well, and although, no dangerous symptoms appearing, very active practice may not be required; yet you are to look upon the condition of the patient as at best uncertain, till that permanent rounded contraction, assimilating the uterus to the head of the full-grown fœtus, be observed.

You will ask me, perhaps, whether there are any gentle means which you may employ, in order to secure a contraction of the womb when torpid? Something may be done by the administration of a cordial, as yesterday recommended. A table-spoonful of brandy, for example, with two or three table-spoonfuls of water, to be given immediately after the birth of the child. Some advantage is obtained, by suffering the uterus to expel the child by its own efforts, in the way recommended. After the birth of the head, as a meddlesome midwifery is bad, do not, seizing the head, drag forth the body of the child, but rather leave the expulsion of it to the natural efforts; for the womb being stimulated in this manner to more complete contraction, you will find the exclusion of the placenta will become more easily accomplished.

It helps, moreover, this contraction of the

womb to lay the hand above the symphysis pubis, to feel the uterus, to grasp it in the hand, but not so violently as to occasion pain, and to roll the hand about upon the uterus as I now show you; this rolling of the hand, and this irritation of the uterus appearing sometimes to operate as a useful stimulus to the womb. So that by the application of these simple means, which can do no injury, even if they produce no benefit, by the compression of the uterus—by the rolling of the hand—by allowing the child to be expelled by the unaided efforts of the uterus; the uterine fibre may be stimulated, and there is reason to believe that the susceptibility of the uterus may be augmented by the administration of some cordial, as soon as the child makes its appearance in the world.

Where the placenta is rudely and injudiciously torn away by the hand of the accoucheur, the worst consequences may be expected to ensue. Floodings, tremendous lacerations, inversions of the uterus, like those which now stand on the table before you—such are the effects of obstetric violence—ferocious and atrocious obstetric violence; that insatiate and gory Moloch, before whose bloody shrine so many thousands have been sacrificed, to be succeeded, in future years, by still more numerous victims. Observing these awful consequences resulting from the artificial separation of the placenta, Ruysch first, and afterwards Denman and Hunter, recommended, that in all cases after the birth of the child, the expulsion of the placenta, like that of the fœtus, should be committted to the natural powers: for they added, "the same natural powers which are adequate to expel the child, are surely adequate to expel the placenta also." And there is no doubt, that if our women, *ferine more*, unaided by art, were committed to their natural powers altogether, like the females of barbarous hordes, in the great majority of cases the placenta would come away; but experience is said to have shown, and from the decision of experience there is no appeal, that in some cases, when the placenta is left to be expelled by the natural efforts, fatal consequences occur. Many cases are said to have occurred, in which floodings have taken place, and some in which the placenta, long retained, could not afterwards be abstracted; and where, remaining unexpelled for two or three days, under the procrastinated use of means to extricate it from the uterus, the greatest injury has been inflicted; so that the practice, twice brought to trial, once in Holland, under the authority of Ruysch, and once in this country, by the advice of Dr. Hunter and Denman, has now been laid aside, probably not without good reason. It seems, therefore, to be pretty well agreed, among those who are competent to form an opinion, that though we are not to be injudiciously and rudely tearing at the placenta, it is necessary, nevertheless, that some artificial assistance should be given; and the greatest and nicest, perhaps the most important of all questions, in the management of a natural labour, is the discrimination of the moment at which this assistance ought to be interposed. Shall we interfere immediately? Shall we wait for an hour? or shall we delay still longer, before the placenta is brought away?

By different practitioners, different rules have been prescribed; and as they have their excellencies as well as their defects, I shall now briefly lay them before you. Some there are, and I think Dr. Hunter was of the number, who recommend that we should take our rule from *time*, and this has the advantage of being a rule of easy and exact application, for the chronometer becomes our oracle. Wait (they say) till four hours after the birth of the child. If the placenta comes away before the four hours have elapsed, it is well; if, on the other hand, it still remains in the cavity of the uterus, manual interference may become necessary. There are others who judge by the pains, without any regard to the time at which the woman has been delivered: pains, they say, accompany the contractions; the contractions expel the placenta; the pains therefore indicate the time at which artificial assistance should be interposed. These practitioners, therefore, after delivery, seat themselves at the bed side of the patient, refraining, for one or two hours, from manual interference, if no pains occur, but as soon as the pains commence, following in the tract of Nature, our best instructress, they lay hold of the umbilical chord, and endeavour to bring the placenta away. Nor is this rule to be despised. There are other practitioners who follow a very different rule also, not without its excellence: determining whether they shall or not assist the birth of the placenta, by the situation of the viscus, without regard to the pains, and without regard to the time that has elapsed since the delivery. If, on examination, they feel the placenta lying in the upper part of the vagina, and through the os uteri; and more especially, if they feel the union of the chord with the placenta, they do not hesitate to remove it; while, on the other hand, if the umbilical chord ascend high into the uterus, and no part of the placenta can be felt, they wait. Now, of the three rules here enumerated, on the whole, I think the last is to be preferred. In ordinary cases, you can never err in abstracting the placenta, when lying, in a great measure, out of the uterus, while there is always risk in the removal of this organ, when it lies in

the fundus of the uterus; and not only a risk, but a difficulty. There are some, lastly, who, without regard to the situation of the placenta, without regard to the pains, without regard to the time that has elapsed since the delivery, determine whether they will assist or not the birth of the placenta, by the feel and condition of the uterus. And though I am not solely guided by this indication, with me it has a great influence. Examining the uterus above the symphysis, and finding it is large and soft, or even contracted, yet pulpy, they consider that the contraction of the womb, so much to be desired, has not as yet occurred. If, on the other hand, feeling the uterus, they find it forming the much wished-for mass, globose and indurated; and not only so, but that, on keeping the hand there for five or ten minutes, the induration remains permanent, they consider that a thorough contraction has taken place, and that the placenta may be removed in safety, whether it lie forth into the vagina wholly or in part. Not, however, to dwell too much on single indications to those who hear me this morning, I would recommend a practice, forming itself under the influences of all these considerations—a rule of composite order.

Before you even think of removing the placenta, it becomes your duty to ascertain whether another child be lodging in the uterus; for, as a general practice, it is always improper to remove the secundines of former children until those remaining in the uterus have been expelled. Rupture of the funis, suffocation of the unborn fœtus, in consequence of the premature abstraction of a placenta, perhaps common to both, not to mention those floodings which we shall hereafter contemplate, must in some cases ensue, where this caution is unwisely neglected; and you ought therefore to investigate this point, as before recommended, with the nicest care, before the removal of the placenta be attempted. Again, in order to guard yourselves against a grand error, which you may incur in early practice, I mean the removal of the placenta too soon, when the uterus is yet uncontracted, I would recommend you, by all means, unless there be hæmorrhage more than ordinary, to wait for half an hour before you operate, for at the end of this time, you will generally find that the womb has reposed itself, that its fibres are contracted, and that the placenta may be safely taken away. Before the placenta is removed, I would further advise you to examine with nicety what is the condition of the uterus; for as observed already, the scientific accoucheur will always be able to decide which of the four states before mentioned, is the condition of the uterus; and if you find that the womb is contracted, globose, and indurated, you may extract the secundines with more confidence; but no flooding forbidding, you had better delay the delivery even beyond the hour when the womb, whether contracted or capacious, is found to be soft and pulpy.

There is one other point which should be investigated before you remove the placenta, and that is the situation of this organ. I will not venture to assert, that you may never remove the placenta after delivery, where the insertion of the funis cannot be distinguished, and when the body of the organ cannot be felt lying forth partially or wholly in the cavity of the vagina; but as a general practice, it is not good to remove this viscus, unless these preparatory conditions exist. If you find the placenta lying so low that you may lay hold of its body, the half hour being expired, you may remove with promptitude; but perhaps you had better delay the removal, even though the glass be run out, provided the placenta be still lying beyond the touch of the finger.

Here then are the four cautionary points which I wish you to remember, though fearful that they may be left behind you, among the benches of this theatre; if indeed, in some aqueous memories, the traces are not already effaced. Before you abstract the placenta, ascertain always that there is no other child in the uterus. Wait for half an hour after the birth of the fœtus, no particular symptom forbidding; satisfy yourselves that the womb is permanently contracted; remembering that it is always desirable that you may feel the insertion of the funis, or the body of the placenta, before the viscus is taken away. I could wish that these cautions might be ever before the mind; importunately and uncalled, presenting themselves to the recollection, like the captivating notes of some favourite melody; or to speak a language more generally intelligible, the no less captivating traits of some favourite face.

If agreeably to these rules you interfere in the extraction of the placenta at the proper moment, you will generally find that the removal may be easily accomplished as follows:—The woman placed on her left side, lay hold of the umbilical chord with your right hand, and the substance of the placenta lying forth, secure a bearing on it with the fingers of the left; having secured your hold, if there are pains, by all means wait for those, and co-operate; for I have found in slighter difficulties, that in removing the placenta, the pains assisted effectually, and perhaps that the placenta could not have been abstracted without them. If pains be wanting, I advise you to take advantage of the expiratory descent; the epithet is not, perhaps, inappropriate, for often with every expiration, we find the chord

descending a little, the placenta being by degrees pushed forward, so that if at each point of descent you prevent its retiring, by little and little the burden is brought away. Perhaps in many cases it may matter little in what direction you pull, though a man of plain good sense, knowing as you do now, the axis of the pelvis, would wish to draw in a line, tending on the whole from the umbilicus to the coccyx. If you find there is a difficulty in abstracting the placenta, continually elevating your hold as the placenta advances, you should seize that part which is last emitted from the uterus, not continuing to grasp that portion of placenta which first escaped, lest you tear it away. Do not *haul* out the placenta; do not jerk out the placenta; do not tear out the placenta, leaving, unobserved, one half of it in the cavity of the uterus. Do not lacerate and leave the membranes to form afterwards a receptacle for clots, or to alarm the patient by their unexpected appearance; *arte, non vi*, must as usual be your device; lead, coax, seduce. Well, then, in this gentle, cautious manner, substituting gentleness and skill for force and brutal violence, you remove at once the placenta and the membranes; and this accomplished, I recommend you by all means to close your practice with the three following cautions: and first, if there have been difficulty in abstracting the placenta, satisfy yourselves that *no inversion* of the womb has taken place; for practitioners have sometimes unconsciously inverted the uterus, leaving it in that condition, an accident which can never happen to you, provided you forbear to remove the placenta till the womb be contracted. You may, however, drowse sometimes at the bed side, as on these benches, and in these torpid and forgetful moments, carelessly abstracting the placenta, inversion may occur.—As, therefore, the neglect of this accident is of serious consequence in all cases, and especially if the secundines be withdrawn with difficulty, make it your rule to ascertain afterwards whether inversion have been produced. Of the characters marking inversion, we shall hereafter treat more largely, remarking, at present, that if in its natural position the womb may be felt in the usual situation above the symphysis; while it is wanting at this part, and forming, like the child's head, a tumour in the vagina, when inversion exists.

A second point to which I wish you also to give your attention is, that of ascertaining that you have got the whole of the placenta from the uterus, and this not by thrusting your fingers into the uterine cavity, a practice to which I must remain decidedly hostile, but by taking the placenta and laying it out upon a napkin, examining both surfaces, and raising the membranes so as to ascertain whether, as in this preparation, the placenta and the annexed involucra be complete. If any part be wanting, the cause of this deficiency should be ascertained; if the whole be there, then of course there is none remaining latent in the uterus. Tenacious of this caution, you will not, like some of the *omnipotent* practitioners, leave, without knowing it, one quarter or one-half of the placenta in the uterus, the patient, in some rarer cases, sinking, or becoming the subject of vomiting, flooding, and alarming pains, with, perhaps, the expulsion of the mass nine or ten days after the delivery was supposed to have been completed. Adhere, therefore, to this practice, so simple, so easy, and so beneficial to the patient, and when you have abstracted the secundines, satisfy yourself thoroughly that the whole mass, fleshy and membranous, is away.

There is one other caution, a third point, never to be forgotten, I mean the risk there is of bleeding, both before and after, but especially after the abstraction of the placenta. Those bleedings, as some melancholy cases prove, may be incautiously overlooked by the accoucheur, and really not always with much blame. Though often more alarming than dangerous, these bleedings are never to be despised; to two women, dead from these floodings, I have been called in one night. To you, however, provided you adhere to the rule of interfering at the proper moment, fatal hæmorrhages, connected with the birth of the placenta, will rarely if ever occur, for they are highly improbable, if the womb be well contracted. When these bleedings are external they can scarcely be overlooked; the patient feels, and perhaps the practitioner hears, the flooding as the blood falls upon the floor. But let it be remembered, that you may have internal hæmorrhages,—all the blood collecting in the cavity of the uterus; known by an alarming tendency to deliquium, a womb that is bulky, and a copious eruption of the blood by gushes when the uterus is compressed. Remember too, that when the patient reposes on a large bed, in the centre of that bed a pool of blood may form without your being aware of it; if, therefore, faintness occur, if the body become cold, and the strength collapse, and the respiration be small or deep, and spasmodic, examine the uterus, and if you find no accumulation there inspect the hollow of the bed. Here, then, are three cautions which I would wish to impress indelibly on your minds and my own, their recapitulation being justified by their importance. After the placenta has been removed, satisfy yourself that the whole has been abstracted; ascertain, in the more difficult cases especially, that inversion has not been occa-

sioned; and on all occasions be on your guard against those floodings, external, internal, or on the bed, often attended with little danger if the patient be well managed, but which, if neglected, will sometimes very suddenly and unexpectedly destroy; and let me add, in terminating this part of our studies this morning, that although floodings may now and then occur long after delivery, yet they are most to be apprehended within a few minutes after the birth of the child, not unfrequently too making their unwelcome attack when the accoucheur is performing his ablutions and about to retire.

My remarks on this topic, tedious perhaps, yet necessary, I may close, by pointing out to you, in a summary manner, the errors which, in managing the placenta, you are liable to incur.

To commence then: I am afraid that some one here present, notwithstanding the cautions of the morning, will hereafter heedlessly remove the placenta when there is another fœtus in the uterus. He smiles—he bows—he retires—another child is born;—which of you all means to signalize himself by this dangerous folly?

I am afraid, again, that some one here present, will be forgetting that, in ordinary cases, when the placenta is taken away, he ought to ascertain whether the uterus be globose and indurated. Watch, therefore, and be careful that you never bring away the placenta without first examining the condition of the uterus. With urgent earnestness, I recommend this caution. Lay your hand above the symphysis pubis, get into the habit of invariably doing this in all cases; till this is accomplished, your duty to the patient has not been discharged.

I hope that no one present will needlessly thrust his hand into the uterus, yet I have my misgivings. I hope, after all I have said of the tearing, and lacerating, and sloughing of these parts, you will never *needlessly* have recourse to this barbaric practice. Some of my obstetric friends, and whose talents I esteem, fall into this error; they grate my ears, by boasting how frequently they have carried the hand into the uterus, and with what facility the placenta has been removed: that this operation may be easily effected, I have no doubt; that it is sometimes necessary, I shall hereafter show; but depend upon it, if you do carry your hand into the uterus on every occasion to get away the placenta, some woman will die at last, and die the victim of your mismanagement; at this moment, perhaps, some amiable but ill-fated creature blooms the light and life of her admiring circle, who must hereafter fall an untimely sacrifice to some cruel and ruthless arm now drowsily crossed in this theatre—which of you is the owner of this atrocious member? But I forbear to declaim. About three years ago, from the father of one of my pupils, I received an anonymous communication, to which his name would have been a graceful addition, complaining that, under my tuition, his son had acquired the dangerous habit of needlessly thrusting his hand up into the uterus. Now, Gentlemen, I appeal to you all, as to your predecessors on these benches, whether it was in this school that he might learn to have recourse to these pragmatic and most dangerous practices?

The tearing of the placenta, and leaving in the womb a portion unobserved, is another error to which you are exposed; especially if, instead of *seducing*, you *haul* forth the placenta. If, in every case, you, as it were, seducingly allure away the placenta, the accident of tearing it can scarcely ever occur; but if you proceed with negligence and violence, large portions of the placenta may remain within the uterus, as I have myself seen.

To suffer the patient to flood unperceived, whether into the bed or the uterus, is another error against which you ought to guard; the majority of these cases ultimately do well, it is true, but I wish you to be prepared for the worst. You may make merry with this caution in ninety-nine cases, but perhaps you will look a little grave upon the hundredth.

The inverting of the uterus, unconsciously at the time, and without observing the accident till hours afterwards, is another error to be deprecated. If the womb be inverted, upon observing it immediately, you may soon replace it; but if it is not known within a short space, reduction becomes impossible. I suppose it would be difficult to find in the annals of midwifery, one case where a womb has been inverted, and remained so for four and twenty hours, reduction being afterwards accomplished.

But to illustrate by preparation: The specimen I now show you, Gentlemen, is of the inverted womb, thin, flexible, and of easy inversion, especially when paralytic, and softened from the loss of blood; in this condition of the uterus, the placenta is not to be taken away.

Here is a specimen of the contracted uterus; puerperal, like the former, but mark the difference. In the former preparation the womb is capacious, its textures thin, its substance flexible; but here, where the womb is contracted, the cavity is small, the textures thickened, the substance indurated, the uterus hard as a bit of cartilage. Of the former uterus, inversion would be easy, but no inversion could occur here. You will observe, too, that where the womb is contracted in this manner, the placenta is detached from the surface, and it must be in great measure expelled from its cavity; and this is the condition of the ute-

rus when the placenta may be safely removed.

Here is a preparation of the uterus in the uncontracted state, and looking on the inner surface to which the placenta cohered, you find there is a number of large unclosed vascular orifices, yawning, as it were, destruction on the patient. Now this preparation shows the condition in which the vessels are, if you tear away the placenta before the womb is contracted, exhibiting the formidable openings at which the effusions of blood occur. But in the contracted preparation, if you look at the blood-vessels, you will find them all closed by the abbreviation of the surrounding fibre, as by so many ligatures, and this is the best preservation against hæmorrhagia; it is *Nature's tourniquet*, her system of living ligatures, which, *as yet*, no art has imitated. You see, then, that it is not without good reason that I am so anxious, before you abstract the placenta, that you should secure the contraction of the womb.

The next preparation exhibited, demonstrates the placenta such as it appears when properly abstracted; in the placenta there is a good deal of variety, but laying it on the napkin, and examining it for yourselves, you will find, that if healthy, it always essentially resembles the specimen I here show you.

Do not needlessly thrust the hand into the uterus; that is the voice that issues from this preparation:—he that has ears to hear, let him hear it.

Do not needlessly thrust the hands into the vagina; is the voice that issues from this preparation:—he that has ears to hear, let him hear it.

Do not needlessly pass the hand into the genital fissure; is the voice that issues from this preparation:—he that has ears to hear, let him hear it. Ah! that violence of an ignorant and savage hand! after examining these preparations, tell me, is it too much to assert, that in obstetrics, a thrust of the hand is more dreadful than a thrust of the bayonet? Could the field of Waterloo exhibit injuries more dreadful than these?

Such then are the general rules which I would prescribe for the management of that most important stage of parturition; I mean the birth of the secundines—the delivery, as, perhaps, by way of eminence, it has been denominated by our Gallic neighbours. When, Gentlemen, from large experience and much reflection, you have of yourselves formed better rules of guidance; by all means, but not till then, let these now given be laid aside as superannuated and defective. In the lessons of the morning, nothing can be more abhorrent from my wishes, than to exercise over the mind any influence which does not emanate from truth and reason; be that far from both you and me! for there is not, perhaps, any intellectual habitude more certainly preventive of our progress in solid knowledge, than that which leads a man indolently to neglect the exercise of his own observation and reason, to adopt servilely the opinion of those who are gone before him. Observe for yourselves—think for yourselves. He is surely less than the least of all philosophers, one who is not worthy to be called a philosopher, who does not often inculcate these maxims. Think for yourselves, then; not arrogantly; not inconsiderately; not (if you please) invading those regions of thought which lie beyond the sphere of human understanding; but on topics within your reach, with observation and reflection, deep and broad, still think for yourselves; never burying in indolence that inestimable gift of nature, so much insulted and disparaged,—Reason; *lux lumenque vitæ, divinæ particula auræ*;—Reason, the fair mother of philosophy, and the brightest and noblest inheritance of the human species.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XVII.

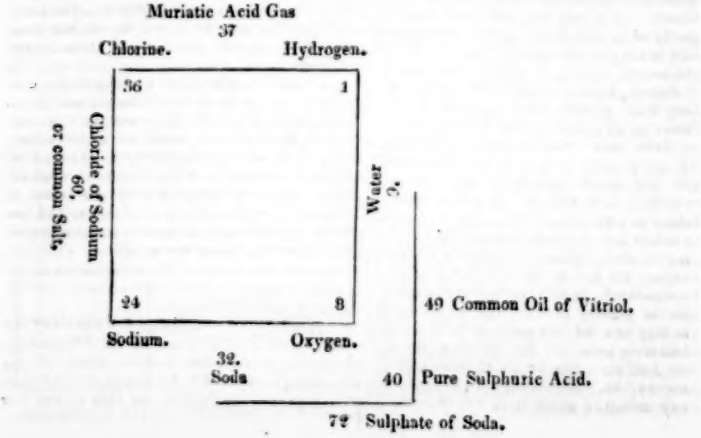
On Muriatic Acid, Hydriodic Acid, and Nitrous Oxide.

Gentlemen,—You will recollect, that at the close of the last lecture, I showed you that muriatic acid was composed of equal volumes of chlorine and hydrogen, by placing them in a glass vessel, and igniting them by the electric spark. We may also show you the same fact analytically, by depriving muriatic acid of its chlorine by means of potassium, and several of the metals. The experiment was then made with potassium; the acid was decomposed, a chloride of potash formed, and the hydrogen evolved. The nature of muriatic acid gas, then, is shown by synthesis and analysis, and we arrive at the conclusion, that it is composed of thirty-six parts by weight of chlorine, and one of hydrogen, the equivalents of the elements, and that thirty-seven is the equivalent number of the gas.

Having thus established the nature of the gas, we will next state its specific gravity. One hundred cubic inches weigh $39.\frac{1}{166}$ grains; compared to hydrogen, it is as 18.5, and to air, as 1.2851, so that it has the

mean density of its component parts. Muriatic acid is much used in the arts, and therefore is a considerable article of commerce; but for the purposes of experiment, we do not use such as is to be obtained in the shops, but manufacture it by introducing a small quantity of sal ammoniac into a retort, and pouring some sulphuric acid upon it, a gas is discharged, which is muriatic acid gas, and sulphate of ammonia remains in the retort. As the gas is very soluble in water, it is very necessary to collect it over mercury; and as the gas is a little heavier than atmospheric air, you might receive it without any close apparatus, by placing the mouth of the retort over an open vessel. Mr. Faraday obtained it in a liquid form, by submitting it to a pressure of about forty atmospheres, and this experiment has shown that it is not a permanent elastic body, as was formerly supposed.

Its properties are easily recognised, it fumes when exposed to the air, it is intensely sour, it reddens vegetable colours, it is fatal to animal life, it is greedily absorbed by water, and it extinguishes the flame of a common taper; because, as you have seen, chlorine burns in it, and chlorine is not a supporter of the combustion of the taper. Its extreme solubility by water is best shown, by placing a small tube, containing a small quantity of water, in the vessel in which the gas has been received; the water becomes intensely sour, and it is, in fact, then the ordinary muriatic acid of commerce. You see that a few drops of water have taken up all the gas in the vessel, the mercury over which it was collected, mounting nearly to the top of the tube. There are two processes resorted to, to obtain the acid; the one when it is desirable to have it pure, and the other for common purposes. Here is sal ammoniac and sulphuric acid put into a retort which is connected with a Woulfe's apparatus, in each of the vessels belonging to which there is water; the water in the first vessel becomes saturated with the gas, and then the water in the second vessel, and so on in succession. Now the acid thus obtained, is sufficient for all the common purposes for which the muriatic acid is employed. Common salt is also used, and sulphuric acid and water are formed upon it, and the muriatic gas and the water distil over together, in the form of liquid muriatic acid. This is the process directed in the present Pharmacopœia. Now the explanation of the changes which take place in this process is very easy, as far as the decomposition of the sal ammoniac is concerned; but with the distillation of the acid from the common salt, the case is different. The common salt contains no muriatic acid, but chlorine; so that the salt furnishes the chlorine, and the water the hydrogen, and thus the muriatic acid is formed; whilst the sodium of the salt attracts the oxygen of the water and forms soda, which, entering into combination with the sulphuric acid employed, produces a sulphate of soda, a salt first discovered by Glauber, and called by him *sal mirabile*. Here is a tabular representation of the changes which take place in this process, and there is no chemical change which may not be represented in the same way. Such tables are resorted to for correcting the great processes of manufacture, and, in many instances, have proved very useful. Now this table shows you what takes place when the common salt and oil of vitriol are mixed together: the substances are represented by their respective numbers.



Thus you see that the salt, the representative number of which is 60, resolves itself into chlorine, represented by its number 36, and sodium, it being a chloride of soda; the water, you see, which was contained in the oil of vitriol, or purposely added if pure acid were employed, is decomposed, and its hydrogen 1. unites with the 36 of chlorine to form muriatic acid gas, the equivalent of which is 37. The sodium of the salt, on the other hand, unites with the oxygen of the water and forms soda, which, lastly, uniting with the sulphuric acid, forms sulphate of soda, the equivalent number of which is 72.

Pure muriatic acid is colourless, but it acquires, by keeping, a pale yellow, and in commerce it is found contaminated with various substances, especially iron. With regard to the quantity of acid that a bulk of water is capable of taking up, we may state that 480 volumes of gas are taken up by one volume of water; so that under mean pressure, at a temperature of about 45°, liquid muriatic acid of specific gravity of 1.21, would contain in 100 parts, say 100 grains 42.43 of muriatic acid gas, so that the quality of the acid may be ascertained by its saturating powers, and by its specific gravity.

Now, *hydrogen* and *iodine* combine, and produce *hydriodic acid*, which is a much more correct term than muriatic acid is for the union of hydrogen and chlorine; indeed, although we call it muriatic acid, the French always call it hydrochloric acid. Hydriodic acid may be obtained by various processes, but it may be best produced by placing phosphorus over moist iodine, the gas then comes over in a gaseous form, which must be collected over mercury. It is an unimportant substance in a chemical point of view, but inasmuch as it forms some medicinal compounds, it must be mentioned. It is very absorbable in water, and partly so in mercury, and is therefore difficult to obtain. It consists of one volume of iodine 125, and one volume of hydrogen, 1. forming hydriodic acid 126. It was for a long time mistaken for muriatic acid; it fumes on exposure to air, and smells like muriatic acid; 100 cubical inches weigh 133.43 grains, so that it is a very heavy gas; its specific gravity to air is 4.223, or to hydrogen as 63 to 1. It may be also obtained in a fluid form, by putting a solution of iodine into a solution of sulphuretted hydrogen, the sulphur is precipitated, and by filtering the liquor, the hydriodic acid may be separated. It boils at 260° when it has a specific gravity of 1.7; the purity of the gas may be easily determined by the action of mercury upon it; the gas gradually sinks into half its volume by absorption of the mercury. Its combinations in pharmacy will be afterwards described.

Nitrogen.—The term nitrogen is applied to a body we are now about to examine, because it constitutes an essential ingredient of nitric acid and nitre, and all the nitrous compounds. It has been called *azote*, in consequence of its destroying animal life; and it is true, that if you put an animal into it, it will be killed; but all the gases, atmospheric air excepted, are azotics, or destructive to animal life. Or we may take another view of the subject, and say, that azote is necessary for the support of animal life; so that the term azote is every way objectionable, and it therefore ought to be called nitrogen.

It was ascertained to be a gaseous body by Dr. Rutherford, in 1792; he burned common air in a bell glass, and he found that the residuary gas was partly carbonic and partly nitrogen. Now, in order to obtain nitrogen for the purposes of experiment, we decompose common air, which is a mixture of one part of oxygen and four of nitrogen; and therefore, if we can extract the oxygen, nitrogen will remain, and we may do this by burning phosphorus in common air. Its specific gravity is a little lighter than atmospheric air, 100 cubic inches weighing 29.65 grains, or as 9.828 to 1.000; to hydrogen, it is as 14 to 1. This gas is characterised by a series of negative qualities, as it were; it is not absorbed by water; does not affect vegetable colours; has no taste nor smell; and is the only gaseous body with which we are acquainted, not capable of supporting combustion. You see that a taper introduced into it is immediately extinguished, and small animals, when made to inhale it, are almost immediately killed. It has no acid or alkaline qualities, but it enters into a variety of combinations, which produce some of the most important substances in chemistry, the arts, and in medicine, and it will be our business to point out the principal of these compounds.

It way be right here to take a general view of the compounds of nitrogen and oxygen, which are very numerous, and which afford many striking instances of the accuracy of the theory of proportion. First, the nitrogen combines with oxygen in what is called one proportional and one, to produce the *nitrous* oxide, which is composed of 14 parts by weight of nitrogen, and 8 of oxygen, forming 22 of nitrous oxide.

Nitrogen 14.	Oxygen. 8.	=	Nitrous Oxide 22.

Then we have nitrogen and oxygen com-

bining in equal volumes, or one proportional and two, to produce the *nitric oxide*; then we have combination of one proportional and three, forming the *nitrous* acid; of one and four, forming the *nitric* acid; and of one and five, forming the dry nitric acid.

First, of the *nitrous oxide*, which was discovered by Dr. Priestley, but first obtained in a pure form by Sir Humphrey Davy, who procured it by heating nitrate of ammonia in a glass retort over an argand lamp; the salt fuses and appears to boil at a temperature of about 420°; a quantity of gas then passes over, which may be collected over water, and is the nitrous oxide gas, or the first combination of nitrogen with oxygen. If we were to adopt a strict nomenclature, we should call this the *protoxide* of nitrogen, or the first oxide of nitrogen; it is about half as heavy again as atmospheric air; it supports combustion very feebly; 100 cubic inches weigh 46.6 grains; it is to air as 1.544 to 1000, and to hydrogen as 22 to 1. If you introduce sulphur into it feebly ignited, it will probably be extinguished, but if you put it into the gas when well lighted it will burn with a purple flame, and the combustion will be very vivid in the gas. Phosphorus introduced into this gas burns with great splendour, but if in a state of feeble ignition it will be extinguished (a piece of lighted phosphorus was then introduced, and Mr. Brande continued); this gives you a specimen of a very intense ignition and decomposition of the gas, the oxygen being consumed and the nitrogen remaining. It is a very curious fact, in regard to this gas, that it may be breathed for some time, and that it produces effects very analogous to intoxication, making persons incoherent in their talk, rambling in their walk, and so on, in the same way as if they had drunk spiritous liquors, and it has been supposed, that persons may inhale it without inconvenience; but I have seen ill effects left from having inhaled it, such as pain in the head, giddiness, and so on, so that I should advise you never to do it; and I speak this, because in some of the schools of chemistry I know that it is customary to allow the pupils to breath it, but it is a foolish experiment, and you may be content with the statement of the facts. It is absorbable in water, of which it takes up, although slowly, about its own volume at common temperatures.

Now this brings us to the next combination of nitrogen with oxygen, namely, the nitric oxide, the description of which we shall commence in the next lecture.

Lecture XVIII.

On the Combinations of Nitrogen with Oxygen; Nitrous and Nitric Oxides; Nitrous, Nitric, and Nitro-Muriatic Acids.

Gentlemen,—The first thing to be done this morning is to show the composition of nitrous oxide; we have already stated that it consists by weight of fourteen nitrogen and eight oxygen, and we may say that it consists of one volume of nitrogen and one proportional or half volume of oxygen, and these three proportionals undergo, by combination, a condensation, forming about two of nitrous oxide, which gives you an explanation of the cause of the greater specific gravity of the nitrous oxide than its elementary gases. Now when nitrous oxide is subjected to a red heat, which may easily be done by passing it and repassing it through a red hot porcelain tube, you find that it enlarges in bulk, and a gradual mixture is effected of the nitrogen and oxygen, by which nitric oxide is formed, and a portion of nitrogen separated, or, in other words, that it is not permanent, but that it resolves itself into the two forms just mentioned. Another mode of analyzing this gas consists in detonating it with hydrogen; if we take one volume of nitrous oxide and one volume of hydrogen, and detonate them by the electric spark, the result will be, that the water will be forced and that the remainder will be reduced to one volume of nitrogen. This again shows us that nitrous oxide is composed of one volume of nitrogen and only half a volume, or one proportional, of oxygen, since that quantity of oxygen is necessary to form water with one volume of hydrogen. This is one of the gases that has been condensed into a liquid state, but the pressure necessary for the purpose cannot be conveniently shown here, as it is at all times dangerous. The pressure of about fifty atmospheres is necessary to liquefy this gas.

We may now proceed to the second composition of nitrogen and oxygen, which is shown in this table to consist of one volume of nitrogen and one volume of oxygen:—

Nitrogen 14.	Oxygen 8. / 8	=	Nitric Oxide. 30

And to produce this, we pour some copper filings into nitric acid, diluted with three or four times its bulk of water, by this process a portion of the oxygen of the nitric acid is taken way, an effervescence takes place, and *nitrous gas*, or *nitric oxide* is produced.

The elements condensing to form this gas undergo no change of volume, and therefore its specific gravity will be the same as that of its component parts; its specific gravity is to air as 1.053 to 1000; and 100 cubic inches weigh 31.77 grains. If, having carefully washed this gas with water, we bring it into contact with vegetable colours; we find that it does not change its colour; it instantly extinguishes combustion, and red fumes are formed the moment the gas comes in contact with the atmospheric air, although not acid in the first instance, having combined another portion of oxygen from the air, it becomes highly acid, forming the nitrous acid.

We shall now introduce a piece of phosphorus into a jar of the nitric oxide, which we shall find will consume its oxygen and leave the nitrogen; so that in this respect the character of the gas resembles nitrous oxide, namely, that at certain temperntures certain bodies are capable of abstracting its oxygen and liberating its nitrogen. Now you have seen that the nitrous oxide is decomposable at a red heat, and that it detonates when an electric spark is passed through the gas; but the nitric oxide will be as a red heat, without undergoing any decomposition, and does not detonate when an electric spark is passed through it; but when some metals are exposed to it at a high temperature for a length of time, it is decomposed.

There is an experiment which I shall now show you, to prove that chlorine produces the same effect upon nitric oxide as upon oxygen, which gave rise to the idea, that nitric oxide contained free oxygen. I shall now mix together a small quantity of nitric oxide and chlorine over water, and you will see that an immediate change takes place; nitrous acid and muriatic acid gases are generated; this is the consequence of the presence of water, the oxygen of which passes to the nitric oxide, converting it into nitrous acid, and the hydrogen passing to the chlorine forms with it the muriatic acid; but this change would not occur if the gases were made in the dry state. (This experiment was shown, and, like every other, perfectly succeeded.)

The next compound of nitrogen and oxygen, is that formed of three parts of oxygen, or one volume, and a volume and half of nitrogen; or 14 parts by weight of nitrogen, with 24 by weight of oxygen. This is a compound which cannot be well shown in a separate state, although it has been shown in this way; nitric oxide and oxygen have been mixed over a solution of potash, and an absorption has taken place, showing that the gas is composed of the proportions here stated. Gay-Lussac, who is too correct an experimenter to require any eulogy on my part, has found that a decomposition of the gas takes place, and that there is a gas formed which he has called *pronitrous acid*, but to which the term hypo-nitrous acid is more applicable. It is not a body of any importance, nor are its compounds of importance, but chemically speaking, it fills up the link in the series of the combinations of nitrogen with oxygen.

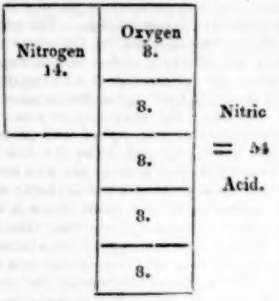
Now if we mix together two volumes of nitric oxide, and one volume of oxygen, the gases will combine and condense into a red fluid, which is the *nitrous acid*. A condensation takes place equal to half its bulk; and the number or equivalent of the acid is 46, it consisting of one volume of nitrogen 14, and four proportionals of oxygen 32, and the best way of showing this will be to introduce the gases into a glass vessel, in the quantities I have named, the result is an orange-coloured gas, at a common temperature; but at a temperature of 0° it gets liquid. Now the gas we have here is very sour, permanently elastic at high temperatures, but condensible by cold. It is absorbable by water, so that if we introduce a small quantity of water into the vessel, containing also a vegetable colouring matter, you will observe how rapidly the water rises in the vessel, and the reddening effect of the acid upon the vegetable colour. It supports the combustion of several substances when introduced into it at high temperature. A hundred cubic inches weigh 64.94 grains, and its specific gravity to air is as 2.153 to 1000, and to hydrogen as 30.66 to 1. Its composition was thus represented on the table.

Nitrogen 14.	Oxygen 8.	=	Nitrous 46 acid.
	8		
	8		
	3		

It is an acid of no particular importance, as it does not unite with any basis to form salts. If we mix this gas with oxygenous water in the proportion of two volumes of the former to one of the latter, if the gas be pure, there will be an entire absorption of it, and it is upon this principle that we avail ourselves of the nitric oxide gas in the analysis of bodies containing oxygen, to determine the purity and the quantity of the oxygen.

This then brings us to the *nitric acid*, the last compound formed by the union of nitro-

gen with oxygen, in which one proportional of nitrogen is combined with five of oxygen, and its equivalent number, as you here see, (referring to the table) is 54. It was thus set down :—



Now this is a very important compound, as well in the arts as in medicine, and was first shown by Mr. Cavendish in 1785. To obtain the nitric acid, the nitrate of potash is distilled with sulphuric acid, generally in the proportion of two parts of nitre to one of sulphuric acid, by which process nitric acid is procured in the liquid state. If, however, we wish to obtain the nitric acid colourless, we then employ equal weights of nitre and sulphuric acid, or nearly so, which are the proportions directed in the pharmacopœia, and the theory of the decomposition is as follows. First it may be stated, that nitric acid cannot be exhibited in the recent state without the presence of water, in which one proportional of pure or dry acid is combined with two proportionals of water, whereas the sulphuric acid in the liquid state consists of one proportional of dry acid and of one of water; hence the necessity of the excess of sulphuric acid, if you wish to obtain pure and colourless nitric acid; the red colour of the nitric acid of commerce being a consequence of the smaller quantity of sulphuric acid employed by the manufacturer. If we take 102 parts of nitric acid, 98 of sulphuric acid, and distil them together, the result is, that the nitric acid is separated from the nitrate of potash, which, instead of passing over in the state in which we may suppose it to have been in its combination with the potash, which state would be represented by 54, it seizes upon two proportionals of the water contained in the nitre and sulphuric acid, of which 18 is the equivalent, and then passes over as liquid nitric acid, exhibited here by the numbers 72, and sulphate of potash is left. I need make no remarks on the pharmacopœia process, because it is similar to that just described, and which you see here going on. The colour of the acid varies extremely, depending upon the quantity of nitrous acid which it contains, so that you have it of various shades of yellow, orange, or green. In making the acid for the purpose of experiment, you may safely use a glass retort and Woulfe's bottles. You rarely find the nitric acid of commerce pure, it is apt to contain muriatic and sulphuric acids, in consequence of the nitre employed in the distillation not being sufficiently pure, it often containing as much as one-fourth of its weight of common salt. You may test it with the nitrate of silver, and if it contains muriatic acid, it will throw down a dense white precipitation, which is the muriate of silver, and if it contains sulphuric acid, you may easily detect it, by adding a little nitrate of baryta, when a white insoluble precipitate of sulphate of baryta will be thrown down. It sometimes contains nitrate of potash, which may be ascertained by evaporating the acid in a platinum spoon, and if any thing be left, you may consider that the acid is impure.

In its undiluted state it acts with great intensity upon animal and vegetable bodies, also upon metals, and it may be said to be one of the most energetically acting bodies we have. Its specific gravity, at its utmost density, is about 1.42, and it requires a temperature of 250 to make it boil, and then it distils over without change, and at 40° below zero it has been frozen. It is hydrometric, so that if you expose it to air it increases in bulk and loses in density, like sulphuric acid. The composition of the dry acid is one proportional of nitrogen 14, and five proportionals of oxygen 40: and in its liquid state, as I before said, it contains two proportionals of water. Liquid nitric acid of the specific gravity of 1.5 contains 79.7 per cent. of acid.

It may be decomposed by a great variety of processes, as by passing it through a red-hot tube, by which it is resolved into nitrous acid gas, oxygen and water. Its nature was shown synthetically by Mr. Cavendish, who produced it by passing electric sparks through atmospheric air confined over mercury, the air being composed, as you know, of two parts oxygen and one part of nitrogen.

I shall leave the examination of the *nitro-muriatic acid* until the next lecture, and shall conclude the present by showing you the two compounds of nitrogen with chlorine and iodine, which possess considerable detonating powers.

Nitrogen and chlorine cannot be made to unite directly, but they may be made to do so by an indirect process; and the simplest is to invert a gas of chlorine over a solution of ammoniac. What happens you will see

from this experiment; the gas is entirely absorbed, and a quantity of matter, looking like oil, is found at the bottom of the vessel. It consists of one proportional of nitrogen and three of chlorine, and its equivalent is 122. You must be very careful in making this compound; you must be very particular to see that your vessels are quite clean, as this oily-looking fluid is a very explosive compound. If you touch it with a bit of phosphorus, which should be tied to the end of a long rod, it explodes instantaneously, dispersing the water in all directions, and often breaking the basin in which it is contained. You should never operate on more than the size of a mustard seed, or so, at a time, and never try to confine it in any vessel. I shall now transfer a small drop of this oily matter from the cylinder, in which you see it floating, by means of this little glass syringe, and having placed it in a separate vessel in water I shall touch it with a bit of phosphorus, secured in the way already mentioned. (The explosion was as loud as a pistol, and the combustion very vivid.)

The compound of *nitrogen* with *iodine* may be termed an *iodate of nitrogen*; it must be managed with the greatest care, as it can scarcely be handled or moved from one place to another without exploding. It shall be shown in the next lecture, as I see that what I had ordered to be prepared of it has exploded in the night.

FOREIGN DEPARTMENT.

ON THE INFLUENCE OF THE MIDDLE AND INFERIOR CERVICAL GANGLIA OF THE GREAT SYMPATHETIC ON THE MOTIONS OF THE HEART.*

These ganglia, according to MM. Milne, Edwards, and Vavasseur, do not exercise an immediate influence on the motions of the heart. These physicians rest their assertion on the following experiment, which they frequently repeated on dogs and young cats, with the same result:—If after opening the chest of the animals, and turning the ribs on one side, the middle and inferior cervical ganglia be extirpated, the heart pulsates for half an hour, sometimes one hour, with its usual regularity, although respiration had immediately ceased after the thorax had been opened.

* Annales des Sciences Naturelles.

SINGULAR EFFECT PRODUCED BY A BLISTER.*

Dr. Ammon, of Dresden, ordered the application of a camphorated blister to a patient affected with a slight attack of pleurisy; the disease had not completely yielded to the employment of blood-letting. The patient would not consent, asserting that some years before the affection under which he now laboured, the application of a blister on the chest produced a strong blennorhagia, which was not cured till after five weeks. The blister, however, was applied, and produced all the good expected from it; but four days after the cicatrisation, the pain having returned, another blister was applied; there soon appeared on the glans penis a deep ulcer, with copious suppuration. Dr. Ammon did not perceive any of the characters of a syphilitic ulcer; he could, however, only attribute the occurrence of the sore to the blister. The ulcer was bathed each day in a solution of acetate of lead, and was cured at the end of three weeks.

ELECTRO-PUNCTURATION.†

Electro-puncturation has been used with great success at the Charité by M. Roux. A young person, eighteen years old, had been the subject of a tumour of the vertebral column for two years, which had brought on complete loss of feeling and motion in the lower extremities. When she was on the point of leaving the hospital, after having remained there for some months without any prospect of relief, M. Roux performed electro-puncturation, by directing in the course of the spinal marrow the galvanic fluid, by means of a very long needle introduced into the spinal marrow across the bodies of the vertebræ, and which was then placed in contact with the Voltaic piles. The patient almost immediately experienced a sensation of tickling at the extremity of the toes, and soon recovered the power of moving them in a slight degree; this power extended successively to the fingers and to the legs, so as to allow the patient to walk without crutches.

DUPUYTREN'S AND LANGENBECK'S MODE OF TREATING PROLAPSUS ANI.‡

The proximate cause of prolapsus ani, probably depends on an extreme relaxation of the levatores ani, so that the upper portion of the gut gradually sinks down, and pro-

* Hecker's Litt. Annalen der gesammten Heilkunde.

† Nouvelle Bibliotheque. Oct. 1827.

‡ Neue Bibliothek fur die Chirurgie, vol. iv. pt. 2.

trudes beyond the anus. The similarity between the action of the levator ani, and that of the levator palpebræ superioris, induced Professor Langenbeck to perform the same operation for intus-susceptio recti, as for entropium. After replacing a considerable portion of prolapsed gut, this surgeon pinched up the skin in several parts of the orifice of the anus, and removed the folds thus formed with a scissars. The wounds healed in fourteen days, and the prolapsus never returned.

The cure must have been effected by an increased contraction of the levatores recti. Dupuytren has adopted a similar mode of treating prolapsus ani, in several cases, with great success.

ON A PRETERNATURAL SIZE OF THE MOUTH.†

Christian Weknstedt was born with a very large mouth, and, in his seventeenth year, the transverse diameter of the mouth amounted to six inches and a half. The mother believed that the child had been born with its foot in the mouth; but as this was not observed at the time, it does not appear very probable. The tongue was so large, that it always hung between the teeth, and, according to the mother, was in that position at the time the child was born. To what cause could this unusual size of the mouth be attributed? Professor Langenbeck conceives, that the size of the tongue prevented the complete formation of the mouth, since it extended from one ear to the other, just as in the seventh week of pregnancy. By the removal of the callous edges of the more internal parts of the mouth, and the use of sutures, this part of the body was restored to its natural size and shape.

TWO CASES OF IMPERFORATE HYMEN.

BY PROFESSOR LANGENBECK.‡

A girl, sixteen years of age, who had never menstruated, complained of a swelling on each side of the abdomen in the region of the ovaries, which never disappeared, but became larger, attended with severe pain in the part, whenever symptoms similar to those of approaching menstruation made their appearance. On examination, I found the fluctuation so distinct, that it might readily have been taken for hydrops ovarii. The abdomen was tender on pressure, particularly in the neighbourhood of the swelling. In the vagina there was a thick membrane, by which it was completely closed. On the division of this membrane, a considerable quantity of menstrual blood escaped, after which the fluctuating swellings in the abdomen disappeared. The vagina was enormously distended, and it was now evident that the blood collected in it, had produced the swellings so evident on the sides of the abdomen. The pain in the bowels increased after the operation, and notwithstanding a strict antiphlogistic treatment was adopted, the patient died on the fifth day. On examination after death, several gangrenous spots were observed on the intestines, as well as a considerable quantity of lymph. The vagina appeared like a blown up sac. In this girl, the inflammatory affection was probably caused by the long suppression of the menstrual blood. The operation was, no doubt, the exciting cause, from which we may conclude, that in cases of supressed menstruation from the same cause, it ought not to be so long deferred.

A similar case came under my notice in a girl of nineteen years of age, who had never mentruated. On examining the organs of generation, the orifice of the urethra was found situated an inch lower down than natural; the hymen was of a semilunar shape; the opening in it was so small that a small probe could scarcely be introduced. The septum between the vagina and the urethra was completely wanting, so that the two formed one canal. The bladder, in fact, opened directly into the vagina. I could discover no traces of the uterus, and after the hymen had been perforated, no menstrual discharge came away. The urine at first was passed involuntarily, but this soon disappeared. I believe no uterus existed in this case.

I have in my possession a child with spina bifida in which the entrance into the vagina is blocked up by the hymen; and the uterus, Fallopian tubes and ovaries are wanting. Betwen the bladder and rectum the semilunar folds of Douglas are situated, and between these the hymen. The labia majora are naturally formed. When the vagina is quite closed, and the hymen does not present to the touch a fluctating feel after symptoms similar to those of approaching menstruation have made their appearance, we may conclude that the uterus is wanting.

In another child, the hymen is wanting. Between the labia majora, there are three openings, the superior of which is the orifice of the urethra; below this, the opening into the vagina, and still lower down, the opening of the rectum.

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* Langenbeck's Bibliothek, vol. iv. pt. 3.
† Ibid.

DR. ELLIOTSON'S

CLINICAL REMARKS

ON INFLAMMATION OF THE LINING MEMBRANE OF THE AIR PASSAGES.

Cases of Bronchitis, and Facts respecting the Continental Doses of Tartar Emetic.

Under the cold and damp state of the atmosphere, peculiar to this season of the year, affections of the mucous membrane of the air passages have been exceedingly frequent from catarrh (common cold) to the most acute bronchial inflammation. Many cases of the latter description having been admitted into the Hospital within the last month, Dr. Elliotson took occasion to introduce the subject in a Clinical Lecture delivered on the 1st of November.

Dr. Elliotson commenced by remarking, that the slightest form of inflammation in the air passages was that denominated catarrh, which usually begins in the Schneiderian membrane and frontal sinuses, causing heaviness of head, sneezing, loss of smell and taste, &c.; it descends to the throat, occasioning a tickling cough and hoarseness, with expectoration; then passes down the trachea into the bronchi, when all the former symptoms are aggravated, and there exist, in addition, difficulty of breathing and soreness of the chest. If the bronchial affection is very severe, then the respiration is short and rapid, and the cough very violent; the countenance is anxious, the eyes suffused, the lips more or less livid, and there is often splitting headach, especially in the act of coughing.

Unless there is inflammation in the substance of the lungs, or of their covering, bronchitis is not attended with pain in the chest. The wheezing and copious expectoration characterise the disease; the wheezing, or rattle, is *mucous, sonorous,* or *sibilous,* i.e. like the sound of air blown through soap and water; like the cooing of a pigeon, the sound of a brass string, or snoring; or it is hissing, chirping, or like the sound of a prolonged hiss. The sonorous is the most common; the mucous happens chiefly at the latter stage of the disease; the *sonorous* is rendered deeper as the tracheal branches become more swelled and the secretion less, and the *mucous* is heard when the secretion is profuse, distinguished only in the diseased portion and part immediately around, and deeper in the affected part and shriller at a distance. In pleurisy there is no rattle; in pneumonia there is a crepitous rattle, i.e. a crackling sound.

The expectoration in bronchitis is first scanty or suppressed; then thin and salt, or sour and transparent, with pearly particles; it is often black at first; then it becomes viscid, opaque, whitish, and at last white and greenish, so as to be puriform, and it is often fœtid; occasionally hard white lumps are spit up, which are sometimes very large, and have the figure of the bronchial ramifications; in short, said Dr. Elliotson, the state of expectoration renders the three stages of the disease like three distinct chronic forms—first, dry; second, pituitary; third, mucous. Dr. E. further observed, there were two other distinguishing marks of this disease; the one, a hollow healthy sound on percussion, all over the chest, which is not heard in pleuritis or pneumonia; and the other, the respiratory murmur, being heard all over the chest, on applying the stethoscope, except on occasional temporary suspension, this latter circumstance being very remarkable, and arises from some branch being accidentally blocked with mucus, which is blown away, and then respiration is again heard.

There are attendant upon bronchitis the usual general signs of inflammatory disease, as heat, thirst, and a sediment (after a time) in the urine; the pulse is quick and full, but soft. The *extent* of rattle over the chest shows the extent of disease, and if heard over one lung and a large portion of the other, then the disease is of dangerous severity. After death the lining of the bronchial tubes is found to be red, swelled, firm, but sometimes soft, and generally more so, accordingly as the examination is longer delayed from the period of decease. When the case has a favourable termination, there is a copious expectoration, which at length decreases; the disease, after being acute, often assumes a chronic form, and is then called *humoral asthma*; the breathing is then short, and at times very difficult, especially in winter and foggy weather, when, in fact, the disease again becomes acute. In many of the chronic cases, there is so much dyspnœa, that anasarca occurs, and the countenance has a purple hue; sometimes, however, in the chronic forms, there is little dyspnœa, but chiefly a cough, with copious glairy expectoration, called *pituitary catarrh.*

Having said thus much of the general features of the disease, Dr. Elliotson proceeded to the recital of two well-marked cases, lately under treatment in the Hospital. The particulars are as follow:—

Case 1.—W. Waters, ætat. 40, admitted into King's Ward on the 1st of November; he had been ill about five weeks. He had violent cough, short and rapid breathing, with copious expectoration; sonorous and sibilous rattle heard to a great extent over the chest. The pulse was 120, full and soft; there was no pain. A pound of blood was abstracted from the arm, a blister applied to the sternum, and *five grains of calomel* ordered to be taken twice a day. On the 3d, the bleeding was directed to be

repeated, as there was not much alteration of symptoms. On the 6th, the mouth was sore, and the patient was materially better; the calomel was now discontinued, and half an ounce of the solution of tartar emetic prescribed, to be taked daily. On the 10th, the mouth still continued very sore; the cough, dyspnœa, and rattle were all very much lessened: the emetic solution was continued for a week, and the patient then discharged well.

Case 2.—The patient in this case, a man 50 years of age, admitted on the 18th of October, was similarly affected with the former; he had been ill five days only with active symptoms, but had for many years been subject to attacks of this description. His breathing was very rapid; he had copious mucous expectoration, and there was sonorous rattle nearly over the whole of the right half of the chest, and partially over the left side. The pulse was full, quick, and soft; he had been bled a pint on the night before admission.

Treatment.—A pound of blood was abstracted from the arm, a blister applied to the chest, and *five grains of calomel* ordered to be taken every six hours; two grains of opium at bed time. On the 20th, the symptoms continued very severe; the mouth not being affected, the calomel was directed to be taken every *four* hours. On the 25th, the mouth had become much affected by the mercury, and the symptoms were all greatly relieved, but still the breathing was hurried and expectoration profuse. The calomel was omitted, and he was directed to take half an ounce of the solution of tartar emetic every morning. This medicine was continued for several days with marked benefit, and the decoction of seneka was afterwards prescribed. Under these means the man was nearly well, when, from imprudent exposure to a current of air, he had a severe relapse, but was soon relieved by the exhibition of an emetic every morning, for a few days.

With respect to the treatment of this disease generally, Dr. Elliotson observed, that in the cases under consideration consisted in local or general blood-letting, blisters, and submitting the system to the action of mercury when the disease is very severe. So convinced was he (Dr. Elliotson) of the power which mercury possessed of arresting acute inflammation, that except in erysipelas, where bark and good nourishment are *sometimes* demanded, and in acute rheumatism, where colchicum answers admirably, he should regard himself as accessary to the death of the patient if the case ended fatally, unless mercury were given so as to affect the mouth. The *tartarised antimony*, Dr. Elliotson said, had been much extolled, especially by Continental physicians, as a remedy in acute inflammations, and he had found that this medicine might be exhibited in large doses. He had given a *scruple* in twenty-four hours, but Rasori is said to give a drachm, or even several, in the same space of time; it excites vomiting at first, but after a few doses it generally ceases to disturb the stomach. Dr. Elliotson considers it to be a valuable medicine, exhibited in large doses; he said, however, that he had only employed it in two cases of acute inflammation, the one pleuritis and the other a case of pneumonia. These patients were in the Hospital last summer, and were bled freely, starved, and blistered during the disease, but tartar emetic was given in lieu of mercury. One patient began with a grain every two hours in solution, and took it for forty-eight hours without nausea, excepting with the first few doses: at the end of the forty-eight hours the patient died. In the second case, one grain of the salt was given in solution, every two hours, for the first five days; then a grain and a half every second hour for two days, and the dose ultimately increased to two grains, which was continued for two days. No sensible effect, or relief, being produced by the medicine, it was abandoned after nine days trial and mercury was had recourse to, but too late, for the patient sunk.

Dr. Elliotson further observed, that he believed, in some of the Continental countries, physicians were content with a far less degree of success than is obtained in this country: from a note in the new edition of Laennec, by Dr. Forbes, he found that Rasori lost 172 out of 832 cases of pneumonia so treated. With rapid mercurializing, however, he (Dr. E.) did *not believe* 32 would have been lost, provided the medical attendant were called in before all treatment was useless, and allowed fair play.

With respect to the use of emetics in bronchitis, and their employment in the particular cases related, Dr. Elliotson remarked that they are often of much utility when the violence of the inflammation has subsided, and when there remains cough, with copious expectoration and some dyspnea. They are also serviceable in the beginning of the disease, in some instances, where there is no occasion for blood-letting, the patient being from the first in the same condition which follows the violence of active disease. In some of these cases the exhibition of an emetic daily, for a fortnight, will often afford the greatest relief, and Laennec speaks strongly in favour of their use.—In conclusion, Dr. E. alluded to the exhibition of *seneka*, in this disease, a medicine which he said was of great efficacy in restraining the discharge, when very copious; an ounce or two of the decoction may be taken three times a day.

THE LANCET.

London, Saturday, December 22, 1827.

THE Royal College of Surgeons in Ireland, since its establishment, has scrupulously excluded all candidates for a licence to practise surgery, from an examination, except those who have been indentured to its own members or licentiates. The justice of this restriction, as it regards the immediate objects of its operation, and its expediency in reference to the true interests of the institution by which it has been so zealously maintained, have long been themes of doubt and of well-founded complaint. The legality of this exclusion has been lately questioned by a licentiate of another College, under the circumstances recently detailed in these pages, and must be shortly determined, not as heretofore by a conclave of Censors, but in the Court of King's Bench, where it is certain of being as ably discussed as it will be justly decided. Much importance is naturally attached by every grade of the profession in Dublin to the result of the expected trial. The liberal portion of the College look upon it as necessarily involving the fate of a regulation which they have hitherto endeavoured in vain to abrogate; the opposite faction, of course, behold in its annihilation an end to their traffic, in what has been termed education by a corporate antiphrasis; by the multitude of foreign students residing in that city, the question is viewed not without some anxiety, many of whom, no doubt, would avail themselves of their local opportunity of obtaining a diploma at the conclusion of their scholastic pursuits, were this impolitic obstacle not in direct opposition to the accomplishment of their intentions. The pendency of the suit affords a favourable crisis for the consideration of the subject in its various relations; but before entering into a detailed discussion of these several points, it is necessary to take a brief view of the motives in which this obnoxious ordinance originated, and has been so pertinaciously perpetuated; for without the removal of this slough from the surface of the general topic, it would be impenetrable to the sanative influence of reason and argument.

In considering these motives, the objects for which Medical Colleges have been established should be constantly kept in sight, as their simplicity will be always found a convenient and correct scale by which their perversion, and the obliquity of selfishness, may be estimated. The ends for which medical corporations have been instituted, though numerous, are easily defined, and may be reduced into two principal ones—first, the security of the public health; and secondly, the advancement of medical science. For the exclusive attainment of these designs, power has been granted to such bodies, and for no other purpose,—every thing done beyond the accomplishment of these intentions being an abuse of the power conferred. The transfer of this authority is, however, attended with an almost unavoidable evil; for were the Legislature to describe, by positive enactment, the manner in which these objects were to be attained, it would obviously deprive the incorporated body of the means of modifying their measures according to the experience of the past, the exigencies of the present, and of adopting plans of future improvement. To obviate this inconvenience, most charters contain a clause which empowers the corporation to make such regulations as they may deem best suited to fulfil the intentions of the legislature; but still this modicum of liberty, or free-will, is granted entirely on trust, and on the presumption that its exercise shall not be abused for personal purposes, but employed for the advancement of the ends contemplated in the instrument of its conveyance. Through

this *donum fatale* of the legislature, it is that corporations seize on the citadel of science, and deal destruction at will on its unprotected professors. No sooner do such bodies possess themselves of this immunity from control, than every idea of the confidence reposed in them disappears, and the most degrading views spring up, as if the aggregation of human nature into the corporate form, could change the constitution of man, and develop new compounds, of which he is incapable in a state of singularity. Their selfishness, aggravated by concentration, and protected, in some measure, by combination, immediately becomes the centre of their revolutions—the single point in their corporate existence to which their attention is directed. No matter under what name, or in what form, they choose to propound regulations for the government of the profession, this original sin of self-aggrandizement must, and will be found, by attentive examination, to mingle itself with all their acts and deliberations. Yet their sagacity generally succeeds in concealing the real design of such ordinances, under a seductive appellation, which not only imposes on the public, but even on the great mass of the profession itself, which are nominally included as participators in these profitable speculations; though, in reality, they are intended for the sole benefit of the master-spirits and contrivers of the intrigue. Thus, the lecturer, when he is told that there is a certain law to be enacted for enforcing an increased number of tickets from the student, pricks up his ears, and is quite enraptured with the justice of a system, which tends to add a few pounds more to his annual income; in like manner, the member or licenciate, on hearing that raising an apprentice-fee forms a part of any new statute, feels a similar animal instinct, and hurries to the quarterly meeting, to give his sanction to a measure which he conceives calculated for his own profit. Though such specious laws can but rarely benefit the majority of the profession, still the vague supposition that they may do so, is quite sufficient to secure to these measures the assent of the expectant multitude, who prefer the chances of a lottery of this kind, to the honest discharge of a public duty. A life interest in the profession, and some individual advantage, are all that such men usually look to in their conduct; and although almost invariably disappointed in their expectations, such is the pleasure of feeding on the unsubstantial viands of hope, that the fallacy is perpetuated. The practitioner who indulges in these fancies, and barters his vote for their presumed realization, deceives himself; mistakes his duty as a public character; and assumes a right which his corporate capacity by no means confers. It is only necessary to appeal to the present and past experience of the surgeons of Dublin, to convince that ninety-nine out of the hundred are never destined to derive the slightest possible advantage from the educational laws which they have supported. His business lies with patients rather than with pupils; in the practice of his profession, rather than in its tuition; and it is from such a source he should derive a remuneration for his services and studies, not from any conventional system of education. By a contrary assumption, he besides grossly perverts the moiety of corporate power conferred on him by a charter, the great objects of which, as has been already stated, are the security of public health, and the lawful advancement of the science which he practises. The practitioner, therefore, who speculates on his corporate power for an addition to his emoluments, deserves to be disappointed in his mercenary views, which are obviously founded on an illegal assumption. It is no objection, at least not a valid one, to these arguments, for such a practitioner to answer, that he himself has conformed to a particular form of education; that it has cost him a certain sum of money; and that,

as far as he is concerned, he possesses a right, and will not give it up in order to admit others to the advantages which he enjoys, except by a submission to a similar mode of education, and an equivalent outlay of expense. Though the motive of this ingenious argument, which is daily put forward, is of a very humble description, being, in plain language, nothing more than if he had said, I have been imposed on, and, consequently, have a right to impose on others, the principle may perhaps be acted on individually, without the attachment of any moral turpitude; and as far as he is concerned, he may refuse to make himself instrumental to the admission of collegiate immunities. But with the individual the right of such conduct terminates, and he cannot, without a violation of the trust reposed in him, extend his corporate power, in order to prevent others from pursuing a different line of action. It is, however, by no means intended to be insinuated, in these observations, that the time and labour of public bodies, and of private individuals engaged in an useful and legal manner, in the tuition of their profession, should not be remunerated, for in all departments of society the workman is worthy of his hire. It is against the total absorption of every other consideration, in the single motive of self-aggrandizement; the conversion of what should be the primary, into the secondary, objects of corporate power; the extension, in short, of public authority to private ends, that these remarks are entirely directed.

Having thus briefly explained the legitimate objects of charters, and the motives by which these objects in general are defeated, we shall resume the subject from time to time, during the pendency of the expected trial, the progress of the contemplated change in the charters of the English and Irish Colleges of Surgeons, until the vile corruptionists who have so long and laboriously sought to convert these establishments into a commercial mart shall be denuded of every rag that conceals the baseness of their present designs. They will be shown that no triumph of a family oligarchy can, in this or any other instance, oppose the power of public opinion; that no ingenuity can convert a national grievance into a tolerable evil; and that the schemes already in preparation to *put down*, as it is phrased by the junto, an individual to whom Dublin is more indebted for professional celebrity than the whole College in the aggregate, will be rendered abortive. The contrivers of the latter scheme are well known; an engine is in our hands which even their corruption dares not contemn, and should they proceed in their contemplated course, the wheel of chastisement shall be kept in motion while a particle of their baseness hangs together.

THE amateurs, both medical and forensic, who expected to be gratified with a grand field-day, in the Court of *Common Pleas*, on Tuesday last, were most wofully disappointed. The scientific OPERATOR, and his able assistant; the PATIENT, and his two nurses; and the learned Judge, who was to have decided on the merits of the operation, were all in attendance at the appointed hour. A very large concourse of spectators, who were anxious to see how the "MODEST AUTHOR" would "*cut up*," had also assembled. When, lo! just as Mr. BROUGHAM had opened his instrument case, and was trying the edge of his favourite knife, SATIRE, it was discovered by the *nurses*, that their interesting charge had suddenly recovered his vision; hence, Mr. BROUGHAM and the spectators were informed, that the patient, under this happy change, declined the operation of DEPRESSION. The announcement of this decision was succeeded by unequivocal marks of bitter disappointment depicted on every countenance in Court, with the exception of those of the patient and his nurses. The elder nurse, who was

to have supported the "modest author's" head during the operation, fearing, probably, that her own *fingers* would be severely *cut*, from the bold and slashing manner in which Mr. BROUGHAM wields his instrument, appeared as anxious, frightened and WILD, as the patient himself; and she was evidently delighted, in no ordinary degree, when the "modest author," either from *fear*, or some other cause, shrunk from the fearful consequences of an exposure to Mr. BROUGHAM's unequalled weapon. Had the *capsule*, in which this BAT has been so long concealed, been fairly laid open, and its dense contents thereby submitted to the salutary influence of public opinion, we have little doubt that the "modest author" would have been completely *dissolved* and removed from the axis of professional vision, within just twenty-four hours after the operation.

Jesting apart, we would ask, is it possible that Mr. GUTHRIE ever seriously contemplated trying this cause? We cannot believe he did; for surely, not even the reputation, such as it is, of a *Pure* or a *Bat*, could be in danger from such a harmless, insignificant squib,* as that of which Mr. Guthrie complains. In our opinion, no action was ever more foolishly commenced, or more wisely abandoned (if abandoned it be), although the *time* and *place* selected for withdrawing the *record*, are characteristic of a something which we do not think proper to name. A more trumpery, a more paltry, a more groundless action, was never taken into a court of justice; and had it proceeded to trial, Mr. GUTHRIE would have suffered from its effects, to the last hour of his professional life. Talk of the liberty of the press, indeed! if such a contemptible squib as the letter of ACIES, is to be deemed a *libel*—a squib, referring to a public man, in discharge of his public duty, in a public institution!—better there were a censorship at once, than that public writers should be the constant victims of such a system of mockery and injustice. The law of libel, however, has recently received very considerable improvements; under the plea of "*general issue*," as much, and very nearly the same description of EVIDENCE being now admitted, as was formerly tolerated under a plea of "*justification*." This is a boon for which the public are indebted to Lord TENTERDEN and Chief Justice BEST.

As the cause cannot at present be considered as finally disposed of, we shall of course be excused from showing the grounds on which we rest our defence, which will appear in good time, should Mr. GUTHRIE ever be rash enough to proceed to trial. Mr. GUTHRIE, like ourselves, had a host of witnesses, amongst whom were ranked the Duke of WELLINGTON, Sir ASTLEY COOPER, and Sir JAMES MACGREGOR; and it strikes us that the cross-examination of the two latter gentlemen would not have been the least interesting part of the day's proceedings. We are told, however, that Mr. GUTHRIE intended to rely chiefly on the testimony of two individuals, whom we do not hesitate to pronounce, the most unprincipled, the most ungrateful, and the most short-sighted scroundrels that ever disgraced this or any other profession—men whose moral turpitude has gone immeasurably beyond the ordinary course of human crimes. Give us the opportunity, kind, "modest author," of publicly extracting from these wretches a history of their own infamy, and we will ever after call thee—FRIEND.

* Letter signed "ACIES," in No. 204.

LAW REPORT.

GUTHRIE v. WAKLEY.

THIS cause was called on at the sitting of the Court of Common Pleas, Guildhall, London, on Tuesday morning the 18th instant, a special jury being impannelled and sworn to try the issue joined between the parties. After waiting a few minutes, during

which an undefended common jury cause was disposed of by Mr. Justice Burrough, Mr. Serjeant Wilde, for the plaintiff, rose, and stated that he was not quite ready, two of the plaintiff's witnesses not having arrived. A short delay then took place, when Mr. Serjeant Wilde (after conferring with Mr. Chitty, the plaintiff and his attorney,) again rose and stated, that he must withdraw the record. On which Mr. Brougham, for the defendant, got up, and expressed his surprise at the adoption of such a course by his learned friend, and to obviate any difficulty which might interpose in consequence of the alleged absence of one or two witnesses, offered to admit the editorship printing and publishing of THE LANCET, when he was informed by Mr. Lofty, the attorney for the defendant, that admissions to that extent had been previously made; Mr. BROUGHAM repeated his offer, and said he would admit *any other matter*, the defendant being quite prepared, and expressly desirous of trying the cause on its merits. Mr. Serjeant Wilde declined, however, to proceed to trial, and withdrew the record!!

Medico-Chirurgical Transactions. Vol. XIII. Part II. 1827. Longman and Co.

IN the second part of the thirteenth volume of the Transactions of the Medico-Chirurgical Society, which has just appeared, some of the communications possess considerable merit; but many also consist only of details of cases, without any attempt at an explanation of the phenomena with which they were attended. Too much care and discretion can scarcely be exercised by the council, or managing body of a learned Society, in the selection of papers for publication in its Transactions, because the character of the body of which the Council are the representatives, will be judged of in a great degree by the talent and skill with which such communications are executed. The Royal Society, whatever other causes may have operated on some occasions to lower it in public opinion, has not suffered in reputation by the publication of its Transactions; in general they are highly creditable to the body from which they emanate, as well as to the country in which they appear. We wish that we could say as much of the Transactions of the Medical and Chirurgical Society of London.

The first communication in the volume before us is from Mr. Arnot, of the Grampus; it contains an account of a case in which a piece of iron hoop, an inch in length and of a crescent shape, was found encysted in the left lung, where it had been lodged fourteen years.

The second, is a case of injury of the head, where, from the bursting of a gun, the breach-pin, three inches in length and three ounces in weight, was lodged in the brain, and imbedded in it, for more than three weeks. The wound was situated just above the centre of the left supercilinry ridge, and the aperture in the frontal bone was about the size of a crown piece, through which a considerable quantity of the substance of the brain was discharged. The position in which the breach-pin lay, was with the screw to the aperture, and the other extremity towards the ear of the same side; it was not extracted without considerable exertion. The patient lost the power of vision of the left eye, but in every other respect completely recovered. The case is related by Dr. Rogers, with some remarks by Mr. Tyrrell. There is no satisfactory reason given for the foreign body being allowed to remain so long in the brain undiscovered. We think this could only have arisen from inattention on the part of the medical practitioner.

The third is a fatal case of inflammation of the left iliac and femoral veins, by Dr. Charles F. Forbes. The morbid appearances observed in this instance were very

similar to those which have been described by Dr. Davis, in his paper on Phlegmasia Dolens, inserted in the 12th volume of the Transactions of the Medico-Chirurgical Society.

The next is a fatal case of hydrophobia, from Dr. A. T. Thomson, occurring in a boy eight years and a half old, from the bite of a cat, three weeks after the injury had been inflicted; the symptoms were very decisive of the nature of the complaint. Prussic acid was administered, and at first with apparent relief, but the child died in three days. The following account of the dissection is well deserving of attention:

"The first object being to examine the state of the spinal chord, an incision was made from the nape of the neck to the loins; and the vertebræ on each side of the spinous processes being sawn through, the cervical portion, and part of the dorsal portion of the medulla spinalis, were exposed. The whole of the cellular membrane between the theca vertebralis and the parietes of the canal was loaded with suffused blood, which, in several places, lay in black coagula. Six inches of the chord, from the third cervical vertebra to the fifth dorsal, being removed, and the dura mater slit up, the vessels of the spinal chord were seen turgid, particularly those which accompany the dorsal nerves.

"On opening the cranium, the meningeal vessels were more turgid with blood than is usual, but certainly not so great as to indicate inflammation; nor were there any bloody points seen in the divided substance of the brain, such as present themselves in states of previous great excitement of that organ. The ventricles were empty: the choroid plexus rather more turgid and darker coloured than common; and, on the base of the brain, particularly in the pia mater covering the pons Varolii and the medulla oblongata, there were evident symptoms of inflammation having affected that membrane. The lungs were gorged with dark-coloured blood, but in other respects healthy; as was also the heart and the pericardium. The vessels accompanying the left phrenic nerve were turgid with blood; those of the right perfectly natural.

"The larynx displayed a slight blush, which deepened on the outer surface of the epiglottis, and still more so in the inner surface. The lining membrane of the trachea was also slightly redder than usual. The pharynx showed evident traces of inflammation; but there was no unhealthy appearance in the œsophagus. There were several patches of ecchymosis in the stomach; the liver, spleen, pancreas, and intestinal canal were apparently in a healthy state."

There are some good lithographic representations of the appearances observed on the spinal marrow, by Mr. Perry.

The fifth paper contains a case of *ovarian dropsy* by Dr. Thomas, of Devonport. In little more than nine months, 87 quarts of serum were drawn off at different times, but after the last operation, the woman became much worse, and soon died. On laying open the abdominal cavity, a large tumour, occupying nearly the whole extent of it, was immediately brought into view. It was of a cartilaginous texture, and contained about two quarts of serum. It was found to be the left ovary attached to the lateral ligament of the uterus by a pedicle of peculiar firmness, and about an inch in diameter. It had no other attachment. The uterus and right ovary were healthy.

The next is a valuable communication by Dr. Merriman, respecting the period of parturition in women; we will give the author's own words:—

"Before it is possible to determine the utmost duration of pregnancy, it becomes necessary to ascertain the point of time from which its commencement is to be calculated; but this remains quite unsettled, for some persons date from the time at which the monthly period intermits, others begin to calculate from a fortnight after the intermission: some reckon from the day on which the succeeding appearance ought to have become manifest; some are inclined to include in their calculation the entire last period of being regular, and others only date from the day on which they were first sensible of the motions of the infant.

"It is highly probably that more accurate observation would clear away much of the uncertainty in which this question remains; and it may be hoped that those, whose opportunities afford them the means, will not neglect to note down such facts as may assist in effecting this desirable purpose.

"With the view of somewhat elucidating this subject, I take the liberty of laying before the Society a Table, for the accuracy of which I can fully vouch, and which was

thus constructed. When I have been requested to calculate the time at which the accession of labour might be expected, I have been very exact in ascertaining the last day on which any appearance of the catamenia was distinguishable, and have reckoned forty weeks from this day, assuming that the *two hundred and eightieth* was to be considered as the legitimate day of parturition. The subjoined Table shows how often this day was deviated from, and what was the actual number of days from the day of menstrual intermission to the birth of the child.

A TABLE

Of the Births of 114 mature children, calculated from, but not including, the day on which the catamenia were last distinguishable.

At 255 days	.....	1
256	.....	1
259	.....	1
		3 in the 37th week.
At 262 days	.....	2
263	.....	2
264	.....	4
265	.....	1
266	.....	4
		13 in the 38th week.
At 267 days	.....	1
268	.....	1
269	.....	4
270	.....	1
271	.....	2
272	.....	2
273	.....	3
		14 in the 39th week.
At 274 days	.....	4
275	.....	2
276	.....	4
277	.....	8
278	.....	3
279	.....	3
280	.....	9
		33 in the 40th week.
At 281 days	.....	5
282	.....	2
283	.....	6
284	.....	1
285	.....	4
286	.....	3
287	.....	1
		22 in the 41st week.
At 288 days	.....	5
289	.....	2
290	.....	2
292	.....	4
293	.....	2
		15 in the 42d week.
At 295 days	.....	1
296	.....	2
297	.....	2
298	.....	4
301	.....	1
		10 in the 43d week.
At 303 days	.....	1
305	.....	1
306	.....	2
		4 in the 44th week.

" From this Table it seems fair to infer, that conception is effected soon after the catamenial period has intermitted, more commonly than immediately before the recurrence of that discharge, contrary to the opinion of a physician, who has directed considerable attention to this subject; and who says, ' It is *more* probable that conception takes place a short time previous to the next expected menstruation; an opinion which we know many physiologists to entertain.'* I may add, that though I have restricted the Table to 114 cases, because those are the only ones which I have been able completely to verify; yet I have calculated a great many more in the same manner, and with results so nearly similar, that I have no doubt of the general correctness of the principle."

Dr. Merriman subjoins three cases, where the period of delivery dated from the last appearance of the catamenia, exceeded forty-four weeks, or three hundred and eight days, thus adding his testimony to the opinion, that utero-gestation may be protracted beyond the usual period.

Mr. Norman, of Bath, relates a case of extra-uterine gestation, where he was obliged to extract the child through an opening made in the posterior part of the vagina. The vagina and peritoneum were divided to the extent of four inches. The operation was rendered necessary, in consequence of the os uteri not being distinguishable, at the

* " Dr. Lyall, ' Evidence in the Gardner Peerage Cause,' p. 60."

time when labour was expected; it was performed on the 14th of October, and the patient died on the 16th. The small intestines and peritoneum were found very much inflamed. The placenta was attached to the right ligamentum latum, from which it was easily separated. The os uteri was situated above the pubes, as in retroversio uteri. The anterior part of the vagina was so compressed under the pubes, that the finger could not be passed, nor the os uteri felt from the vagina. The uterus was thickened and hard, but not scirrhous. The cavity was lined by a well-marked tunica decidua. Mr. Norman thinks, that had the placenta been found after the delivery of the patient, and the uterus not been diseased, the patient would probably have recovered; and he consequently thinks, that in some future case of extra-uterine gestation, when the head may be in a similar position, the operation may be successful.

The next paper contains two cases by Mr. Birch, of laceration of the uterus. In one, death followed about eight weeks after the mischief; the other was followed by recovery.

Mr. Birch draws the following conclusions from his cases:—

"1. That delivery ought always to be accomplished, inasmuch as it certainly does not lessen, but I believe increases, the chance of the woman surviving; if she lives, it insures her a more perfect recovery; and moreover it affords the only, although confessedly remote, prospect of saving the child's life.

"2. If the child remain in the uterus, it ought to be extracted by the forceps or lever, if possible; by the perforator, if these will not succeed; or by turning, if neither kind of instrument is applicable. The forceps are to be preferred for a very obvious reason; and embryotomy is preferable to turning, because the pelvis being almost always small, this latter operation would often not succeed, and it would endanger or ensure an increase of the mischief.

"If the child have but partially escaped into the cavity of the abdomen, it ought to be brought back, if we can accomplish it without the greatest violence; and if this be not possible, it must then be taken through an opening in the abdominal parietes.

"4. If the child have entirely escaped into the cavity of the abdomen, it should be brought back through the laceration, if practicable, without great force, which I believe will always be the case when the laceration is of the cervix or vagina, and when the operation is undertaken within any reasonable time from the period of the accident.

"5. That where turning is not practicable, from the firm contraction of the uterus, or where it would endanger a great increase of the rent, there gastrotomy should be had recourse to, as affording the woman a better chance of living, a much better chance of perfect recovery, than a total abandonment of her to the 'vis medicatrix naturæ,' and as giving her child the sole chance of surviving.

"6. That whatever is done should be done speedily, for these reasons; if the child have not already passed into the cavity of the abdomen, the probability is that it will very soon; if the child have passed into the cavity of the abdomen, the shorter time it is in contact with the viscera, the less likelihood will there be of subsequent inflammation, and the less chance will there be of the uterus contracting firmly."

There is also a case recorded by Dr. Smith, of Maidstone, of rupture of the uterus, from which the patient recovered. The case appears to have been very judiciously managed, and the life of the patient to have been saved by the prompt treatment adopted. After the turning of the child had been deemed necessary, the os uteri was found adhering to the vagina under the pubes, and presenting a sharp edge, which firmly resisted the passage of the hand. An incision was then made into the os uteri, so as to allow the hand to pass. There was so much difficulty in getting away the head of the child, that it became necessary to use the perforator. The patient, however, perfectly recovered.

[*To be concluded in our next.*]

VETERINARY INTELLIGNCE EXTRAORDINARY.

On Thursday evening last, we were entertained with another specimen of college liberality, in the appearance of Sub-professor Sewell, as a Lecturer on Veterinary Surgery, at the Royal Veterinary College. The worthy Gentleman, after entering the theatre, opened his harangue by informing the pupils, that the Governors of the Institution had *kindly* permitted him to transfuse to them the very extensive and valuable stock of veterinary surgical knowledge which he had acquired during his twenty-five years experience at the College, in which period of time, it is reported, he has received, at the rate of 500*l.* a year, a sum amounting to 12,500*l.*, besides house-rent, &c.; saying nothing of the other appointments held by the Sub-professor, such as the superintendence of the Light-horse Volunteers' Stables in Gray's-Inn Lane, out-practice, &c.

We were also much surprised, particularly as we do not remember to have seen a deputy professor lecturing before, to see Professor Coleman's handsome mahogany cane-backed chair removed, and a dirty old oak kitchen chair substituted for it. A pupil made an effort to get it changed, but failed in obtaining support. The performance, or farce of "Much-ado about Nothing," proceeded tediously enough to a welcome finale. We much wish we could compliment the Governors on their *kind liberality*, more particularly in this enlightened age; but, on the contrary, we must censure them for obliging the pupil, who has paid his twenty guineas for all the knowledge that the practice of the College and the Professors can communicate to him, to give an additional five for the *wonderful discoveries* of a Sub-professor, who has been so well paid for his services. We further contend, that it is the duty of the Governors to consider whether the Sub-professor ought to make any additional charge for knowledge, which the Professor is bound to communicate in *his* lectures, and for which the pupils pay such an enormous fee.

MRS. DENMARK'S CASE.

Aneurism of the Arteria Innominata treated by Mr. Wardrop, *by tying the Subclavian Artery.*

To the Editor of The Lancet.

Sir,—Mr. Wardrop, in his last communication to you,* on this most interesting and important case, seems displeased that I did not enter more fully into its history, in the observations which I had lately the honour of submitting to the Westminster Medical Society, on the subject of "internal aneurism."* He accuses me of having given "a very imperfect statement" of it; a statement which, he says, he is anxious "may not mislead the public."† Mr. Wardrop is, perhaps, offended, that I did not express, in more unqualified terms, my conviction of the perfect propriety, and complete success of his operation. I felt that I had strong motives for my reserve on these points, and am sorry that Mr. Wardrop has not known better how to appreciate them. The subject of my speech was internal aneurism *generally*, a subject which some very recent events had rendered of more than common interest. In illustrating this, I stated no more of Mrs. Denmark's case, than what I thought would be favourable to Mr. Wardrop's declared views of it. I abstained from bringing all the facts of it, as I had observed them, before the meeting. 1st. Because it might have been construed into a breach of confidence in me, to have availed myself of the private professional communications which I had with Mr. Wardrop on this subject, either for the purpose of combating his views in public, if they happened to differ from my own, or for the purpose of anticipating him in their promulgation, if I had happened to adopt them. 2dly. Because I knew that my opinions would be published, might reach the ears of the patient, and perhaps produce doubts in her mind as to her own safety; doubts which Mr. Wardrop's statements in your Journal, have been hitherto so well calculated to keep at a distance. Although Mr. Wardrop's unprovoked attack upon me, (which I felt no reason to anticipate,) may be justly considered to have absolved me from, at least, a part of these ties, I shall still continue to be bound by them, and shall therefors withhold from the public, for the present, any further details of my own impressions as to this case, than those contained in my letter to Mr. Wardrop, already published,‡ and in my speech as reported in The Lancet. The lacunæ which I thus leave, have been so perfectly filled up by Mr. Wardrop's last report to you, that there can no longer exist any danger of the public being misled by me. I must however say, in my own defence, that I feel quite as incapable of using language calculated to mislead, either in this, or any other case, as Mr. Wardrop can be.

This case, Sir, is already the property of history, and your Journal must be referred

* Vide Lancet, No. 223.

* Vide Lancet, 208.
† Ibid 220. ‡ Ibid 223.

to for its annals. It is of the last importance to the profession, and to humanity, that the principles and the application of this bold and novel practice, should be maturely and carefully weighed. That this hazardous operation should be viewed in all its bearings, by other eyes than those of the man whose zeal for the improvement of chirurgic medicine first led him to perform it, but whose cooler judgment may, for a moment, have been dazzled by the brilliancy of the anticipated results.

Under these impressions, I sent to you on the 10th instant copies of the notes which I had taken of two careful examinations of this woman's chest. The first examination was made on the 18th of October, shortly after her return from the country. The second was begun on the 7th instant, before I could have seen Mr. Wardrop's last report to you, and has been continued daily up to this date. To each of these I have attached my own diagnosis and prognosis, with some short remarks made on the occasion. You will be kind enough to keep these papers in your possession, and not to publish them until all apprehension shall have ceased, as to the possibility of Mrs. Denmark's mind being affected by an acquaintance with their contents. Whenever this moment shall have arrived, you will be pleased to give them immediate insertion in your Journal, as the only means left to me of proving to the public, that I have taken some pains to prevent their being misled, by anything I may have said, or written, on this subject.

I have the honour to be, Sir,
Your very obedient humble servant,
D. Barry.

26, Welbeck Street,
Dec. 15, 1827.

WESTMINSTER MEDICAL SOCIETY.

Saturday, December 15, 1827.

Mr. Arnott in the Chair.

Mr. Bennett's observations on the *analogy of internal and external inflammation*, delivered at the former meeting, formed again this evening the text for a discussion, which eventually became very general. It seems to have been the wish of Mr. Bennett to substantiate an opinion, that inflammation is *essentially* the same when it attacks an internal as when it affects an external part; that inflammation to a more or less extent prevailed in a majority of diseases, both extrinsic and intrinsic, and *par consequence*, that a distinction between medicine and surgery cannot obtain.

Dr. Barry spoke at considerable length on the subject of inflammation generally; the gist of his arguments, however, was, that the series of phenomena, to the accumulation of which the term inflammation has been ordinarily applied since the days of Celsus, are not observable in every part of the body, when it may be the subject of inflammation. In fact, that *rubor*, *dolor*, and *color*, might be absent, and still the part be under a state of intense inflammation, known by its results. He considered that *tumor* is the only essential and invariable attendant upon inflammation, and this *tumor*, arising from a loaded state of the vessels.

Dr. Milligan followed on the same side, referring to many of the internal parts of the body, in which, under a state of inflammation, one especially of the *Celsian* symptoms is not present, namely *redness*. Dr. A. T. Thompson contended for the universal existence of heat, redness, pain, and swelling, under a state of inflammation. Dr. James Johnson thought it important to distinguish between simple excessive determination of blood, observed in the act of blushing, &c., and the same excessive determination combined with other symptoms, the union of which constitutes inflammation.

It was observed by Dr. Stewart on this point, that the circumstance of *continuance* or endurance of excessive determination of blood, is the only ground of distinction between this affection considered simply, and inflammation.

Mr. Lambert, Dr. Shiel, Mr. Skene, and several other gentlemen, took a part in the debate, and at the conclusion, there was some good-humoured skirmishing between Dr. Barry and Mr. Bennett; the latter observing, that although he admitted each different texture of the body, when affected with inflammation, presented especial phenomena, dependent upon its peculiar organisation; yet that they were one and the same affection of the sanguiferous system.

LONDON MEDICAL SOCIETY.

December 17.

Dr. Haslam, President, in the Chair.

The subject of fever was again agitated this evening, in reference to Mr. Bryant's case of abscess in the cerebellum.

Dr. Clutterbuck, who commenced the discussion, entered into a more minute explanation of his views with respect to blood-letting in fever, showing that he did

not indiscriminately recommend this practice.

Mr. WRAY, without coinciding fully in Dr. Clutterbuck's theory of the cause of fever, strongly advocated the propriety of blood-letting, appealing to the successful result of his practice. He was in the habit of taking away small quantities of blood, as late as the 27th day of fever, when the teeth were covered with sordes, and the tongue dry and "colloped." Mr. Wray inquired whether in was not invariably discovered on the post-mortem examination of fatal cases of fever, that inflammation had existed in some organ or organs of the body. And if such were the fact, blood-letting was clearly indicated.

Mr. WALLER, who took an entirely opposite view of the subject, inquired particularly of Dr. Clutterbuck, how it could be reconciled to his hypothesis, as to the cause of fever, that in Mr. Bryant's case of abscess in the brain no fever prevailed, although inflammation of the brain had undoubtedly existed. If inflammation of the brain were really the cause of fever, then fever, as a matter of necessity, must exist in this case; but as fever was not present, Dr. Clutterbuck's hypothesis, as Mr. Waller considered, was, by this very case, disproved. Mr. Waller further remarked, that Dr. Clutterbuck rested his opinion of inflammation of the brain being attendant on all cases of fever, from certain symptoms, Dr. Clutterbuck acknowledging that dissection would not in all cases prove it, but he had seen many instances where all the symptoms which Dr. Clutterbuck enumerated as pathognomonic, were produced from loss of blood.

Dr. SHEARMAN remarked, that inflammation of the brain, (as he had been taught,) is the proximate cause of many diseases, as mania, epilepsy, &c., in which there is no fever. He wished to inquire, whether there really were so many distinct and separate kinds of inflammation of the brain.

Mr. PROCTOR and Mr. SHIRLEY were opposed to the practice of blood-letting in fevers under ordinary circumstances—contending, that it was impossible to "put out" or "cut short" the fever—that it would run a determinate length, and, therefore, it was necessary to husband the strength of the patient.

Here the conversation ended on the subject of the fever, and the remainder of the evening was occupied by the registrar reading an essay of Mr. Searle, on the powers which promote the expulsion of the fœtus.

The main object of Mr. Searle's paper was, to show that the respiratory muscles are the principal agents in the expulsion of the fœtus, and that the uterus itself is almost passive on this occasion; the proportion of strength, in which it acts, being only as 1 to 100. Mr. Searle remarked, that he had boiled the impregnated uterus of a mare in water, and also an unimpregnated uterus, but could discover no difference in respect to muscularity. He conceived that the muscular power of the uterus was greatly exaggerated, the fibres being attenuated and weak, and bearing a close resemblance to the muscular coat of the arteries. The uterus, at the full period of gestation, when divested of its membranes and blood-vessels, not being thicker than an ovarian cyst. Mr. Searle inquired how it was possible, that so weak an organ could exert such an immense force, as is necessary to the expulsion of the fœtus? Mr. Searle further contended, that if the uterus did contract in the act of parturition, after the expulsion of the liquor amnii, it would grasp, compress, and retain the fœtus, instead of expelling it. Mr. Searle then went on to show, in what manner the respiratory muscles are subservient to many actions of the body, as sneezing, coughing, vomiting, &c.; and observed that in labour, the diaphragm is forced down upon the fundus of the uterus, whilst the abdominal muscles press on the sides, and by the combination of these forces, the contents of the womb are expelled. The abdominal muscles, however, as Mr. Searle conceives, acting but a subordinate part, and entirely ceasing to be efficient, when the child has passed low down. The circumstance of the female taking a full inspiration, and holding her breath, at the time of what is called a labour-pain, was adduced by Mr. Searle in proof of his theory, with other ingenious arguments.

The only writer who fully accords with the proposition, that the respiratory muscles are the principal agents in parturition, is (as Mr. Searle observed) Blumenbach, and he quoted a passage from Dr. Elliotson's translation of this author's work on physiology, which is very express upon the point.

At the conclusion of the essay, the time of the Society had expired; the discussion upon it will, therefore, take place at the ensuing meeting, which is postponed to the 14th of January, in order to allow the worthy members some indulgence in Christmas cheer.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

FATAL CASE OF INGUINAL HERNIA.

HENRY LOGGINS, æt. 22, a stout young man, had been affected with inguinal hernia for nearly a year, but which he could re-

duce at pleasure, and without pain or further inconvenience. Had never made use of a truss. Early on the morning of the 7th, whilst raising a heavy weight, the hernia came down suddenly, and to a much greater extent than at any previous time. He paid no attention to it for several hours, when it became painful, and he attempted to reduce it. At this time he was also advised to rub the swelling severely, as a means of returning it. He remained during the day and the following night without applying for advice, suffering at times most excruciating pain. On the morning of the 8th, the day following, he applied to Dr. Duffin, of Weymouth Street, who sent him to the Hospital, where he presented himself about eleven o'clock, with the following symptoms:—a large swelling, of the size of a fist, occupied the right side of the scrotum, extending upwards to the external ring; it was tense, and the integuments somewhat inflamed. There was no tenderness of the abdomen, but on handling the tumour he complained of slight pain. The patient stated, that his bowels had been very slightly opened in the course of the night.

He was put to bed, and bled at the arm till he fainted. Attempts were then made to reduce the bowel, but without success. He took a large dose of castor oil, and a bladder filled with ice was applied over the tumour; this was continued until the evening, during which, occasional applications of the taxis were employed. Up to this time he had complained of little or no pain, and could readily allow of pressure both on the abdomen and tumour. About seven o'clock he became somewhat restless, had slight hiccup, and tendency to sickness. Little hope of reducing the hernia being now held out to him, he assented to the operation, which was accordingly performed by Mr. Wardrop; the sac was found to contain a large knuckle of intestine, which was of a dark purple colour: there was also a considerable effusion of serum. The stricture, which was found at the external ring, was divided, and the protruded bowel readily returned. The patient died early in the morning of the next day, having begun to sink soon after the operation. On opening the abdomen, the small intestines were found generally inflamed, but the intestine which had been protruded was almost of a black colour, softer in consistence than natural, with considerable thickening of its parietes.

ST. THOMAS'S HOSPITAL.

CASES OF FRACTURE OF THE CRANIUM.

CASE 1.—*Compound Fracture of the Skull, with Depression, unattended with symptoms of Compression of the Brain.—Operation, and Fatal Termination.*

In this case there were no symptoms present, indicative of compression of the brain, although the bone was extensively depressed. Mr. Travers, however, adopted the same plan of treatment as in the case reported last week, where symptoms of compression *did* exist, and for the reasons stated below, which are strictly in accordance with the principles inculcated by Sir Astley Cooper. It is perhaps unnecessary to remark, that the practice of operating in *every* case of compound fracture of the skull with depression is strongly objected to by many surgeons: it is a practice, however, generally pursued at these Hospitals.

J. Williams, aged 13, a robust, healthy boy, was brought to the Hospital on Sunday noon, November 11th, in consequence of having received severe injury to the head, about half an hour previously. The accident was occasioned by the falling of a brick wall, the remnants of a fire, which occurred in Queen Street, a few days before: he was buried in the ruins, and was taken out in an insensible state. When admitted, he had in a great measure recovered his sensibility; the surface of the body was cold and damp, pulse feeble and irregular, countenance pallid, pupils dilated, but obedient to the stimulus of light. He vomited once, and complained of pain in the head. On examining the head, two transverse lacerated wounds were observed, about three inches in length, extending across the vertex towards the right ear: the edges were separated, and dirt was mingled with the blood, in the wounds. At the lower wound a portion of bone could be felt very sensibly depressed, and the same also with the upper wound to a less extent.

It was deemed advisable to send for Mr. Travers, who arrived at the Hospital about two hours after the patient's admission; at this time reaction had taken place, the pulse having become more regular, and the surface of the body warmer. Mr. Travers, having examined the wounds, and readily discovered the depressed bone, remarked, that although there were no symptoms of compression, yet he considered it proper to remove the depressed portions of bone, for it was highly probable that they would act as irritants and produce inflammation of the

meninges, when it would be of no avail to operate.

The boy having been removed to the theatre, the operation was commenced by enlarging the lower wound downwards and backwards, when the depressed bone was rendered very apparent. A portion of the posterior superior angle of the right parietal bone was seen to be fractured transversely, to the extent of about two inches in length, and an inch and a half in breadth; the bone was considerably depressed below the level of the surrounding portion, and was driven under at the upper part. A small portion only was detached, which was removed. It was evident that the depressed bone, from the circumstance of its being driven under, and firmly wedged in, could not be removed without cutting away a portion of the sound bone; this was accordingly done, with Hey's saw, *but not without much difficulty*. This having been at length effected, the elevator was used, and *considerable force* employed, in order to raise the bone, which was done by piece-meal; a small part of the inner table of the skull, which remained after the use of the elevator, was taken away by means of dressing forceps, and this was succeeded by a copious discharge of venous blood. The bleeding was at first attributed to the supposed circumstance of the longitudinal sinus being wounded, but subsequently it was discovered that the blood proceeded from a large vein, passing to the sinus: a dossil of lint was applied, and the bleeding was easily restrained. The whole wound was covered with simple dressing, and the boy put to bed; absolute quietude being enjoined.

Monday 12th. We learn this morning, that shortly after the operation the patient slept; in the evening the pulse was stronger, but compressible, and he complained of pain in the forehead; there had been no further bleeding from the wound. The pulse was 80, early this morning, and slightly intermitting; he had, however, passed a quiet night: the lint was removed from the wound, and no bleeding ensued. A dose of castor oil was given, as the bowels had not been moved. At noon, when seen by Mr. Travers, there was considerable alteration in the patient's condition; the pulse at this time was small and weak—the skin moderately warm—the pupils natural, but there was a dull expression of countenance. He answered questions, somewhat unwillingly and hesitatingly: there had been some bleeding from the wound. The oil having been rejected, and the bowels not yet acted upon, Mr. Travers directed an enema to be administered, with four grains of calomel, a few hours after, if required.

The lad continued in much the same state for several hours, then gradually sunk, and died at six o'clock in the evening.

Post Mortem Examination.

This was made on the following day by Mr. Ward. Externally, there was nothing remarkable to be observed: on removing the calvarium, the vessels of the dura mater were seen to be congested generally, and there was a wound of this membrane, corresponding to the fractured portion of the skull, of about half an inch in extent, and at a short distance from the lateral sinus. The pia-matral vessels were gorged—not with black blood, but with a fluid resembling blood, which had undergone a partial decomposition; the membrane was readily detached from the surface of the brain. The substance of the brain presented no morbid appearance. No other part of the body than the head was examined.

Case 2.—*Compound Fracture of the Skull, with depression, unattended by symptoms of Compression of the Brain.—Operation, and Fatal Termination.*

In this case, there was less extent of depression of bone; it was however elevated, in accordance with the principle laid down in the former case, by Mr. Travers. The termination of this case will be found to be very remarkable, symptoms of high nervous irritation supervening on the second day after the operation, and eventually proving destructive. Dissection, as usual, revealing nothing in this *disorder of function*.

S. B., æt. 12, of spare habit, was brought into the hospital at the same time with the preceding case, the accident having occurred from the same cause.

When admitted, a circular portion of the scalp, about two inches in diameter, was found torn from the cranium, and reflected; the bone was denuded of pericranium to some extent. There was a fractured portion of bone, of about the size of a shilling, very evidently depressed, at the upper and back part of the left parietal bone. The pulse was small and irregular, the skin cold, the pupils natural; he was perfectly sensible.

In addition to the injury of the head, there was a lacerated wound at the outer angle of the left orbit, extending some way above and below: *the globe of the eye was not injured*. There were bruises in various parts of the body, especially on the right side of the chest and hip.

Mr. Travers having examined the case, and Mr. Tyrrell also, (who was accidentally at the hospital,) it was agreed upon to perform an operation for the removal of the depressed bone, and this was readily effected by the elevator, the bone not being im-

pected, as in the former case. The dura mater was uninjured. The wound was dressed with simple dressing, and a few strips of adhesive plaster lightly applied.

12. The patient has slept well during the night; he is quite sensible, and complains of pain at the back part of the head; the skin is hot, tongue white and moist, pulse 90, and somewhat sharp. He took a dose of castor oil early this morning, which has operated freely; the wound at the eye has discharged some blood.

13. This afternoon the patient began to exhibit symptoms of nervous irritation, being very restless and fidgetty; he was, however, perfectly sensible. The bowels had been very much disturbed by the castor oil exhibited yesterday. Mr. Travers, considering the symptoms to be referrible to a state of undue nervous excitement, and not dependent upon inflammatory affection, directed an opiate injection to be administered, and a dose of castor, with æther, to be given every four hours. A blister to be applied to the nape of the neck, with three leeches to the temple.

14. The opiate injection procured some repose, and the patient is, upon the whole, somewhat less irritable; the pulse is small, and upwards of 120. The leeches were applied, but not the blister; the castor and æther were rejected, and therefore discontinued. There is nothing remarkable in the appearance of the wounds, to which a bread and water poultice is applied.

15. The patient, to-day, may truly be said to be labouring under the highest possible nervous excitement; he is talking incessantly to himself, and has been doing so throughout the night, almost without cessation; the pulse is exceedingly rapid and small; the bowels have not been moved since Tuesday night. Ordered to take five grains of calomel immediately, and a saline draught, with five minims of laudanum, every four hours.

The symptoms continued unrelieved throughout the day and night, and he died early on the following morning.

Post Mortem Examination.

The body was examined a few hours after death. There was some discolouration of the integuments around the immediate seat of injury. The calvarium having been removed, which was accomplished with much difficulty, the dura mater was found to be perfectly healthy, but a circle of ruptured blood-vessels was apparent at the part corresponding to that portion of the skull whence the *external* pericranium (as we have described) was detached. It seemed that a far more intimate vascular connexion than natural had taken place between the inner surface of the bone and dura mater, and this occasioned the principal difficulty in raising the skull cap. The surface of the brain was equal; there was no appearance of any previous compression having existed. The arachnoid tunic and pia mater were even less vascular than natural, as was also the substance of the brain, which was, however, soft generally. We might perhaps except one portion opposite to the depressed bone, which was certainly more than usually vascular throughout its cineritious structure. No further examination was made.

CASE 3.—SIMPLE FRACTURE OF THE CRANIUM, WITHOUT DEPRESSION, ENDING FATALLY FROM EXTRAVASATION OF BLOOD ON THE BRAIN.

Singular Chronic Disease of the Brain.

W. M., a boy apparently about 13 years of age, was admitted into the Hospital on the afternoon of the thirtieth of November, having fallen upon the pavement from a considerable height, whilst employed in cleaning a window. He was picked up, in a senseless condition, and brought to the Hospital soon afterwards: he vomited once or twice on his way thither.

When admitted his face was pallid, the surface of the body cold, and the heart's action was so feeble that the pulse at the wrist was a mere thread: the pupils were dilated and fixed; in fact all the powers of the body were prostrate. Upon examining the head carefully no wound could be detected; but the scalp was much swollen, apparently from the extravasation of blood: this was more especially the case at and about the junction of the right parietal with the occipital bone, there was also some swelling about the left temporal bone. No fracture or depression of the bone at any part could be found.

The means first employed were those calculated to produce what is called reaction, and consisted in the application of warmth to the surface of the body, and the exhibition of a small quantity of brandy and water, from time to time.*

Dec. 1. The boy now lies in a state of partial stupor, from which he is easily roused, and then tosses about in a wild, irregular manner, apparently without being at all conscious: he cried last evening, but has not spoken. The *left* radial pulse is about 74, weak, and somewhat irregular; the

* This treatment was directed by the dresser, Mr. Oates, and not by Mr. Travers, as it has been *wilfully* misstated. The patient came into the Hospital about three o'clock on the Friday afternoon, but *was not seen by Mr. Travers until the following morning.*

right radial pulse is scarcely perceptible; the pupils are dilated, but faintly obedient to the stimulus of light; the bowels have been freely relieved by a turpentine enema exhibited during the night. There is no pain evinced when the right arm is smartly pinched, but the opposite limb has full sensitiveness; and, singular enough, when this is pinched he moves the right arm.

Mr. Travers saw the patient at nine o'clock this morning, and directed the application of leeches to the temples; the enema to be repeated. Five grains of calomel had been given by the dresser.

Dec. 2. Sunday. 3 p. m. There is not much alteration in the symptoms of yesterday; the pupils *dilate* on the admission of light; the left radial pulse is now small and quick, about 100; the dresser informed us that it has varied much during the night, being at one period very rapid and at another time slow.

3. Noon. The boy remains in the same comatose condition; the pulse at the left wrist is small and quick; the right pupil is dilated and the left is contracted, and the latter *dilates* when light is thrown upon the eye. The bowels were relieved at nine o'clock this morning.

At three o'clock this afternoon, Mr. Travers saw the patient, and divided the scalp very freely at the part we have described as swollen on his admission, under the supposition that a slight depression of the bone, which had not yet been perceived, might exist. No fracture or fissure, however, was detected. The boy was roused, and sensible of pain during the operation, but speedily fell into the same state of partial stupor, as before. The cellular membrane of the scalp was found to be loaded with extravasated blood: the subsequent bleeding from the cut was not considerable. It was not deemed proper, by Mr. Travers, to adopt any further means.

4. The lad was much the same at noon, to-day, as yesterday; but, at about 4 p. m., he became very restless; tossing himself to and fro, as if suffering much pain; the pulse became more feeble, and the countenance anxious. Nothing further was done; Mr. Travers considering it to be a "lost case."

5. Noon. He is now quiet; the pulse is upwards of 120, and feeble; one pupil is contracted and the other dilated No further means have been employed.

6. Noon. Evidently in a dying state. He expired in the evening.

Examination of the Head.

This was conducted by Mr. Mackmurdo: upon denuding and examining the skull carefully, a fissure was found, commencing at the coronal suture on the left side at the point where it is crossed by the anterior meningeal artery, and passing downwards and along the os frontis, to the right external angular process. In addition to this was a second separation of bone; the coronal suture from the point above mentioned, at which the first fissure commenced, was asunder to within a short distance of the squamous portion of the temporal bone; and here the fracture, leaving the course of the suture, took an oblique direction backwards, for a short distance.

Tracing the inside of the cranium with the finger, a slight irregularity of bone was felt at the upper part of the os frontis: upon the dura mater, corresponding to this part of the bone, was a small clot of blood, and this was the only morbid appearance observed on this membrane. When the dura mater was detached, then the mischief which had ensued became apparent: there was very extensive extravasation of black blood upon the brain, at the upper part and side of the middle lobe of the right hemisphere. Thus far, of the result of injury; but continuing the dissection, a singular chronic disease of the brain was discovered:—on separating the hemispheres, in lieu of the corpus callosum was seen an opaque whitish cyst, which readily burst and discharged a considerable portion of serous fluid. This cyst was placed at the under part of the left hemisphere, immediately above the lateral ventricle; in fact, the lower part of the cyst was partially the covering or roof of the lateral ventricle. It was nearly of the size of a pigeon's egg, smooth, polished, and vascular on its inner surface. The left ventricle was greatly distended, containing several ounces of serum; there was no appearance of the corpus callosum, or of the fornix; the floor of the ventricle being covered by a thin membrane (*the velum interpositum*?) The brain was now removed and put in spirit for the purpose of hardening it, and thus allowing of a more minute examination, when the right ventricle was found equally distended with the left, and it was now also distinctly ascertained that there were no relics of the corpus callosum. A slight portion of the fornix was perceptible on the right side, and also its anterior pillars.

The upper part of the spinal marrow, we omitted to say, was examined, but nothing morbid was detected; no other part of the body was inspected. We find upon inquiry of the boy's parents, that he was a lad of weak mental powers, retaining his childish habits and pursuits to an advanced period. He had of late, however, filled a situation of trust, being accustomed, as his mother states, to take care of sums of money, which he did with accuracy and fidelity. She remarked also, that he was frequently in the habit of

laying his head down, even when he sat at table, but never complained of pain. He was a patient in Guy's Hospital more than eighteen months ago, on account of injury to the neck from a blow, and he felt for a considerable time afterwards stiffness about the part.

OPERATION OF LITHOTOMY BY MR. TRAVERS.

On Friday last, Mr. Travers performed the operation of lithotomy on a boy four years of age. The gorget was used on this occasion, and a calculus of about the size of a hazel nut extracted: the patient is doing well.

ABUSES AT ST. THOMAS'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—It is with regret I am compelled to have recourse to the plan made use of by my brother chips, at the other Metropolitan Hospitals; but since abuses are getting to such a height here, I must crave permission for a corner in your valuable publication. The first thing I have to mention is, with regard to the *Sectio Cadaverum*. It is shameful to think that so much money has been stolen from us, (for so it may justly be termed,) since it was paid for the privilege of attending these examinations; yet day after day occurs without a single notice being stuck up. Some little time since, Dr. Williams thought proper to have notice given, but within one week this improved plan of proceeding stopped. I think, Sir, it would be no bad plan to suggest, that these examinations might take place in the Demonstrating Theatre, against the door of which, as well as in the Surgery, a notice should be posted, as each pupil might then have an opportunity of witnessing the morbid appearances with satisfaction to himself, for in so small a place as the Dead-house there is such cramming and pushing that all cannot conveniently see. Another thing I beg to propose is, that a certain time be fixed for these examinations to take place. With regard to the attendance of the surgeons of this establishment, I must, though unwillingly, complain of Mr. Green and Mr. Travers; I am sure no student can conscientiously complain of Mr. Tyrrell's neglect, he being regularly at his post within a minute or two of twelve o'clock, whereas the other two gentlemen seldom make their appearance till one, and often after that time. It was a short time since proposed, by a few students, that the anatomical lectures should be delivered half an hour later, as there would be then more time to attend to the surgical practice of the Hospital, and the surgeons would probably be more punctual in their attendance; but since the alteration has taken place, I am sorry to say the delay in making their appearance has, on the contrary, increased.

Trusting that what I have said may have some influence towards the acquisition of the rights of myself and fellow students, I have the honour to remain,

Sir, your obedient servant,

A ST. THOMAS'S PUPIL.

December 14, 1827.

TO CORRESPONDENTS.

MANY communications have been received, and for which we return thanks. Several of them will be most useful.

We should feel greatly obliged to "X." if he would be more explicit on the subject mentioned towards the close of his letter.

"R.L.Y." will perceive that the "cases" were not wanted; we entreat him, however, to keep his eye on the whole of the parties. It is our duty to look out for squalls.

Several Students belonging to the St. Bartholomew's and Webb-street Schools, complain of the disgusting conduct during lecture, of four or five ignorant puppies, who are constantly annoying the class by throwing pieces of paper, orange peel, and other missiles, at such pupils as are desirous of attending to the discourse of their teachers. Why not give the fellows a ducking under the pump? At all events, if the nuisance should be continued, we will publish the names of the offending parties.

The statement of "An Eye-witness" will not be forgotten.

Mr. LAWRENCE'S reply to Messrs. Cooper, Travers, and Butter, has been received, but is unavoidably postponed. It shall, however, certainly appear in our next number.

THE LANCET.

ON Saturday, Jan. 5, 1828, A STAMPED EDITION of this Journal will be published, (price 1s.) which may be sent, FREE OF POST, to any part of the kingdom; also to the BRITISH COLONIES, on payment of *three half-pence*, at the General Post-Office. Orders for this Edition should be forwarded, as quickly as possible, to the London *Newsmen*.